

UNIVERSITY  
OF MICHIGAN

APR 27 1953

PERIODICAL  
READING ROOM

# THE AMERICAN NEPTUNE

A QUARTERLY JOURNAL OF MARITIME HISTORY



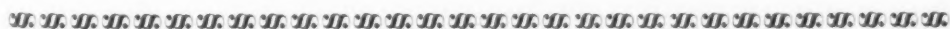
Eastern Sail Affinities, Part I, by Richard  
LeBaron Bowen, Jr., *p.* 81

Maritime Manuscripts in Baker Library,  
by Robert W. Lovett, *p.* 118

Tales of Banks Fishermen, by Horace P.  
Beck, *p.* 125

'Thar She Blows,' A Version by Llewellyn  
Howland, *p.* 131

Recent Writings in Maritime History, by  
Robert Greenhalgh Albion, *p.* 141



PUBLISHED BY THE AMERICAN NEPTUNE, INCORPORATED  
SALEM, MASSACHUSETTS

\$6.50 a year

\$1.75 a copy

*Documents*, pp. 134-140

Eben Caldwell to His Cousin, William Titcomb [Contributed by Dana J. Pratt], *p.* 134

A Suit Against Jonathan Woodman of Newbury, 1694 [Contributed by L. W. Jenkins], *p.* 139

*Bibliography*, pp. 141-152

*Advertisements*, pp. 153-156

---

Entered as Second Class Matter, February 26, 1941, at the Post Office at Salem, Massachusetts, under the Act of March 3, 1879. Additional entry at the Post Office at Portland, Maine.

THE  
AMERICAN  
NEPTUNE

A QUARTERLY JOURNAL OF MARITIME HISTORY



Volume XIII. No. 2

April 1953

COPYRIGHT 1953 BY THE AMERICAN NEPTUNE INCORPORATED  
SALEM, MASSACHUSETTS

*Published by The American Neptune, Incorporated, Salem, Massachusetts*

*Printed by The Anthoensen Press, Portland, Maine*

*Collotype plates by The Meriden Gravure Company, Meriden, Connecticut*



# THE AMERICAN NEPTUNE

*A Quarterly Journal*



*of Maritime History*

---

VOLUME XIII

APRIL 1953

NUMBER 2

---

LATE last autumn on a fine sunny afternoon, with two other Neptunians, I visited the boat shop of Hiram Lowell and Son in Amesbury. It is a pilgrimage that should be made by everyone who is interested in small boats, the sea, New England maritime industries, and fine craftsmanship. Here is one of those rare old industries founded in 1793 (six years before our Museum in Salem came into existence) on the banks of the beautiful, broad river where

*'As brightly on the voyager's eye,  
Weary of forest, sea, and sky,  
Breaking the dull continuous wood,  
The Merrimac rolled down his flood;'*

Here in the same spot, with the wide river still sweeping past, the boat-building business is carried on by the same family who, during this period, constructed over a quarter of a million small boats. Ralph P. Lowell, the personable young man now running the business, is the seventh generation of Lowells to build boats.

All through the great days of Gloucester fishing Amesbury dories have been stacked on the decks of the fishermen. While most of the big hand liners, salt bankers, mackerel fishermen, trawlers, and all the others were built at Essex, the Banks dories were built in the Lowell shop in Amesbury. I recall one old-timer in Essex telling me years ago how he

*remembered the ox teams in the spring of the year wending their way from the Merrimac through Essex to Gloucester piled high with Banks dories—dories by the scores.*

*The building of Banks dories goes on today but a few other models have been added. A smaller rowboat called a Salisbury Point skiff is one of the popular products as well as open boats built especially for both outboard and inboard motors. More specialized boats are the large life-saving dories and also all the rowboats used at Boy Scout camps all over the country. Years ago large quantities of Banks dories were shipped to Portugal for the extensive fisheries of that maritime country. Other big orders went to the West Coast but the dory demand there has fallen off in recent years. An able, sturdy boat is also supplied the city of Boston for use around the drawbridges.*

*Without advertising, without ballyhoo, but only by sheer excellence of craftsmanship over a long period of years, Amesbury-built boats are known everywhere as the sturdiest and best available. A short time ago two boats were built for the use of pilots on the coast of Africa and another order, which went half way around the world, was for an extra heavy and commodious dory-type boat to be used for landing goods through the surf in far-off Tahiti. And so from this fine old shop on a bend of the broad, dark-flowing Merrimac, amid the smell of fresh-sawed wood and shavings, paint, tar, and caulking compound, work eight skilled men under young Ralph Lowell. Some of them have been with the business for years and worked for his father and grandfather, and their boats continue to go out for the use of fishermen, yachtsmen, life-saving service, bridge tenders, pilots, and, in short, everyone who uses small boats. It is the kind of place that it is good to see, good to visit, and the men are good to talk to. Unhurried, efficient, skillful, with apparent ease, they put their dories together before your very eyes—a bit of old New England, still fulfilling an economic demand in the modern world. A good boat cannot be improved upon.*

ERNEST S. DODGE

Peabody Museum of Salem



## Eastern Sail Affinities

### PART I

BY RICHARD LeBARON BOWEN, JR.

#### I

IT seems fitting to dedicate this article to the late James Hornell: only reference to Hornell's various works on indigenous watercraft of the Eastern Seas, stretching from the shores of East Africa through the Pacific to the shores of North and South America, has made this present study possible in such a complete form. Much of the data that Hornell recorded would not have been preserved otherwise, for every year sees some form of primitive craft succumb to the continuing advance of Western civilization.

In a masterly three-volume work (*Canoes of Oceania*) written in collaboration with Dr. A. C. Haddon, Hornell presented an excellent picture of the watercraft of Oceania at the time of European intrusion, carefully analyzing models in museums and early writings on the subject.

In an article on 'Outrigger Canoes of Indonesia,' Hornell painted a picture of the craft of Indonesia, and in 'Ethnological Significance of Indian Boat Designs' and numerous later articles he presented a picture of Indian craft. In his book, *Water Transport*, he furnished much valuable additional information on this same area. It may be said that never before has one man contributed so much to the basic nautical knowledge of so extensive an area.

Much has been written on the general subject of 'eastern sail affinities,' but most writers have failed to make use of even a small part of the available evidence. When considering the sails of Oceania, one must start with Indonesia, from whence it is suspected that many migrations started; one must also examine the areas to the west—India, Arabia, and Madagascar—where it is known that Indonesians migrated.

While I do not believe that the sail was ever invented independently in two different areas, it seems certain that the square sail did evolve independently into many more advanced forms in different areas. Until contrary evidence is produced we must accept the home of the sail as the

Nile River, for the square sail was used in pre-dynastic times (circa 3100 B.C.) in Egypt.<sup>1</sup> This article will demonstrate that many similar sail types have evolved independently in separate areas—all from the simple square form.

It can be said almost categorically that before European intrusion, Eastern sails were made of matting. Sometimes the matting was made in strips and sewed together, other times the matting was made in enormous sections the size of the sail. The Arabs were apparently the first to use cloth sails widely.



Fig. 1. Early Dutch spritsails of the fifteenth century showing two spritsails not laced to the mast, but one that apparently is. (*After Nance.*)

Foreign influence is most often shown in the sail of a craft, while the hull is more often indigenous. This is forcefully demonstrated by the Arab lateen, which is found today in the Indian Ocean on Arab, Indian, and African hulls, and until a short time ago, was found in the Mediterranean in a slightly different form on Egyptian, Turkish, Greek, Italian, Spanish, French, and North African vessels. It may be safely said that the sail is one of the most easily diffused cultural traits known to man, and when searching for a sail's origin one is justified in ignoring other comparative archaeological and anthropological evidence regarding the peo-

<sup>1</sup> For an illustration of this boat, cf. R. LeB. Bowen, jr., 'Arab Dhows of Eastern Arabia,' *THE AMERICAN NEPTUNE*, IX (1949), Fig. 1, p. 89.

ple who use the particular sail in question, or the design of the hull of the vessel. The sail could be the only evidence of a new racial element. Actually there are many examples in Oceania where islanders attempted to adapt a foreign sail to a type of vessel to which it was not suited, or did not understand the proper use of a borrowed sail design.

Cultural evolution is exactly like organic evolution, for when there has been a long development, the older forms persist in some areas as the main stream passes them, and often certain cultural 'species' evolve into more than one form.

It is necessary to start this discussion of Eastern sails with the invention of the European spritsail. It may be demonstrated by chronological methods that the European spritsail could not possibly have led to the development of the so-called Oceanic spritsail. The exact evolution of the European spritsail is known from pictorial evidence, and it seems probable that the Oceanic spritsail followed the same course, although today there is no positive proof.

The European spritsail was invented by the Dutch sometime in the fourteenth century as the first true European fore-and-aft sail.<sup>2</sup> The evidence seems to show that originally this sail was tied to the mast only at the head and the foot. A manuscript dated circa 1416 shows a spritsail with more than half of the lower part of the sail laced loosely to the mast at six or seven places.<sup>3</sup> However, a manuscript of the latter part of the

<sup>2</sup> In this work 'fore-and-aft sail' will refer only to those sails covered by the definition of 'fore-and-aft sail' in Webster's Dictionary: 'Any sail not supported by a yard or yards, usually carried on a gaff, or stay, with or without a boom.' The important point is that such a sail may be tacked head-to-wind, by bringing the vessel into the wind and shifting only the sheet. While many other sails, e.g., Arab lateen, may be set fore-and-aft to the ship, they may not be *tacked* in this manner. There are certain other sails that, while they may be tacked head-to-wind by shifting only the sheet, are not strictly fore-and-aft sails since they are set on yards; such is the case with various lug sails and certain varieties of lateen sails.

Actually the lateen and some lug sails are more closely related to the square sail than they are to the fore-and-aft sail, since the sail can be set square to the boat when sailing downwind without danger of gybing. They are also similar to the square sail in that usually they will not sail to windward with any degree of success when the sail is backed against the mast. Many writers have a very bad habit of calling all lug and lateen sails fore-and-aft sails; this is not correct and only leads to confusion. E. K. Chatterton (*Fore and Aft Craft and Their Story* [Philadelphia: Lippincott Company, 1928], p. 27) and R. & R. C. Anderson (*The sailing Ship* [New York: McBride and Company, 1947], p. 98) are two of the worst offenders, for in an attempt to simplify a classification of all sails, they divide them into two great classes: 'square' sails and 'fore-and-aft' sails. This cannot be done.

In this article various types of lug sails are discussed. The term 'dipping lug' will be applied to lug sails with the tack forward of the mast (Figs. 16a, 16c, 16d, 17, 21a, 27a). Some of these (Fig. 27a) may have a boom at the foot. The term 'standing lug' will be used to refer to lug sails whose tack is made fast at the mast (Figs. 16b, 26, 27b, 28, 29, 30). Most of these have a boom at the foot of the sail. The term 'balance lug' will be used to describe rectangular sails contained between two spars, and usually not having the tack made fast at the mast (Fig. 24). Lugs with booms are commonly called 'balance lugs,' but since almost all sails in the Far East have booms, this is not practical here. A 'square-headed lug' is one in which the head of the sail is cut square, although when the tack is pulled down forward the head may dip considerably (Figs. 16a, 27a, 28a). A 'jib-headed lug' is a lug in which the head of the sail is cut on an angle (Figs. 17 and 30).

<sup>3</sup> H. H. Brindley, 'Early Sprit-Sails,' *Mariner's Mirror*, VI (1920), 248.



fifteenth century shows quite clearly two small spritsails not laced to the mast (Fig. 1), but a large craft with the sail down shows the luff of the sail fastened to the mast by carefully drawn hanks of rope.<sup>4</sup> Thus it would seem that on small craft the spritsail was tied only at the head and the foot for almost a century after it came into existence. By the beginning of the seventeenth century the spritsail was in common use in both Holland and England.

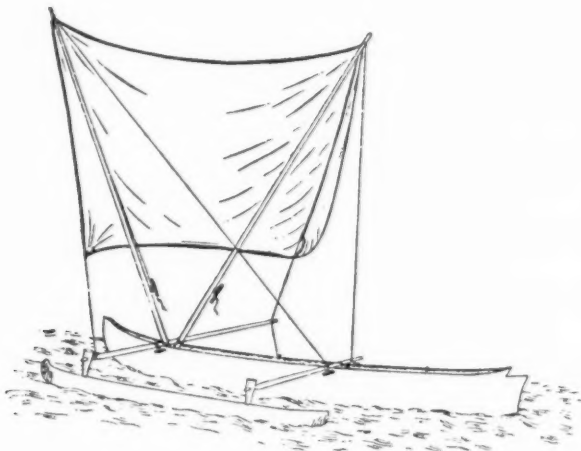


Fig. 2. Proto-Oceanic spritsail of the type found in Sumatra, Ceylon, Madagascar, and Arabia. This particular example is from Madagascar. (After Hornell.)

While the Dutch spritsail was not originally laced to the mast, by the time Dutch ships were in Eastern waters in force, i.e., after 1600,<sup>5</sup> it had assumed its final form with the luff laced to the mast. Thus the loose-luffed ancestor of the Dutch spritsail could not have been introduced into Eastern waters by either the Dutch or the English.

## II

For centuries before the European invasion of Eastern sea lanes,<sup>6</sup> the Javanese and Sumatrans had been journeying both east and west. The westward migrations hit India, Ceylon, and Madagascar. Indians were also voyaging eastward, for Javanese chronicles indicate that Buddhist influence from India began as early as A.D. 75; in A.D. 132 we have the

<sup>4</sup> R. M. Nance, 'Smack Sails, XV Century,' *Mariner's Mirror*, VI (1920), 343-344.

<sup>5</sup> The first Dutch ship rounded the Cape of Good Hope in 1595 and the first English ship in 1580 (R. Coupland, *East Africa and Its Invaders* [Oxford: Clarendon Press, 1938], p. 52).

<sup>6</sup> Vasco da Gama sailed around the Cape of Good Hope in 1497.

mention of a Sumatran king with an Indian name. Ferrand<sup>7</sup> considers that the peaceful penetration of Java and Sumatra by Indians began not later than the fourth century B.C.

The first migration to Madagascar must have occurred soon after the Indians settled in Java, in the early centuries of our era, since few Sanskrit words are found in the old Malagasy (Madagascarene) dialects, whereas many are incorporated in modern Javanese from long contact with the Indians. Ferrand<sup>8</sup> deduced from linguistic evidence that there had been two colonizations, one as early as the second to fourth centuries A.D., and the second in the tenth century; Ferrand<sup>9</sup> later decided that the first immigration took place about the beginning of the Christian era by Hinduized occidental Indonesians.

There were also Indonesian settlements in India (at Ceylon, Malabar, and Sind), and in South Arabia at Aden. Numerous Arabic works refer to a people called Sayabiga who were originally Sumatrans settled in Sind, but who were captured by the Persians and removed to the Persian Gulf early in the seventh century A.D.<sup>10</sup> Ibn al-Mujawir, writing in about 1233, relates that the people of al-Komr (Madagascar) arrived at Aden in outrigger ships and took the town from the fishermen who lived there, but were later driven out by neighbouring Arabs.<sup>11</sup>

In those areas where the Indonesian element in the population has remained strong, as in Madagascar, we might expect to find some elements in the watercraft that are of Indonesian origin, but in places where the original Indonesian elements have been more or less completely absorbed by the more dominant elements, as in Arabia (Aden), in Ceylon, and in India, we would not expect to find many nautical elements that could be traced to Indonesia. It is therefore quite remarkable that there has existed into historical times at Madagascar, at a point near Aden (in Yemen), and at Ceylon a sail that is without doubt of Indonesian origin, for an identical sail is found in Sumatra, and all the craft on which these sails are carried have outriggers except in Arabia. For the purposes of discussion, we shall call this sail the 'proto-Oceanic spritsail.'<sup>12</sup>

The rig consists of a square sail supported by two 'sprits' (Fig. 2).<sup>13</sup> The

<sup>7</sup> G. Ferrand, 'Madagascar,' *Encyclopedia of Islam* (London: Luzac & Co., 1936), III, 64-75.

<sup>8</sup> Ibid.

<sup>9</sup> G. Ferrand, 'Le K'ouen-louen,' *Journal Asiatic*, XIV, 68.

<sup>10</sup> G. Ferrand, 'Sayabiga,' *Encyclopedia of Islam* (London: Luzac & Co., 1934), IV, 200-201.

<sup>11</sup> G. Ferrand, 'Madagascar,' *Encyclopedia of Islam* (London: Luzac & Co., 1936), III, 64-75.

<sup>12</sup> Actually it should be called 'proto-Indonesian spritsail,' but since there are no Indonesian spritsails, 'proto-Oceanic' will be used.

<sup>13</sup> J. Hornell, *Water Transport* (Cambridge: University Press, 1946), Fig. 65, p. 270. For an illustration of the Arabian type, see R. LeB. Bowen, jr., 'Primitive Watercraft of Arabia,' *THE AMERICAN NEPTUNE*, XII (1952), Fig. 13, 216.

forward one may be considered the mast and the aft one is identical in function to the sprit of the European spritsail. The only difference between this rig and the primitive loose-luffed European spritsail is the fact that the mast (forward-sprit) on European vessels was fixed in an upright position as a permanent mast. Haddon<sup>14</sup> relates that at Madagascar the two sprits are stepped in holes (12 to 14) in a block of wood running along the keel line. When going before the wind the sprits occupy two holes next to each other; when close hauled the sprits occupy the

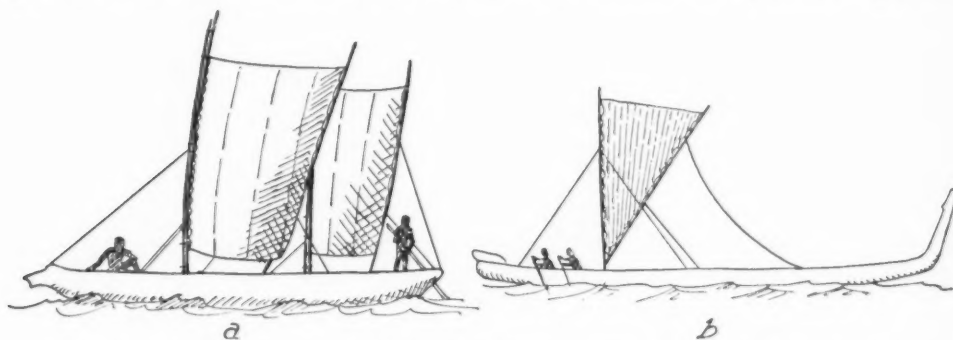


Fig. 3. *a* shows a Melanesian type spritsail from Port Moresby in New Guinea. Note the double sprits serving as the fore sprits or masts. (*Original sketch by the author from a photograph published by Haddon.*) *b* shows the Oceanic spritsail which was typical of much of Polynesia, with a triangular sail confined between two straight sprits. This particular sail was found at New Zealand, and similar sails were found at Samoa, Manihiki, in the New Hebrides, the Marquesas, and South America. (*Original sketch by the author from material published by Hornell.*)

holes farthest apart. In Madagascar the rig is only found on outrigger dugouts, and it is claimed that with it the craft can make as much as twelve knots. The device of the stepholes is not known in Ceylon,<sup>15</sup> Arabia, or Sumatra, so it must be a local development. The Ceylon and the Arabian sails are higher than wide, while the Madagascar sail is like the Sumatran sail—wider than high.

The stanchions of the double outriggers of East Africa have undergone such drastic evolution from the original Madagascar form (which is identical to a form still surviving in Java), that there has obviously been a very long period of time since cultural contact was lost between the two. Since this double sprit is associated with the more primitive Madagascar form

<sup>14</sup> A. C. Haddon, 'The Outrigger Canoes of East Africa,' *Man*, 18 (1918), art. 29, p. 52.

<sup>15</sup> J. Hornell, 'The Common Origin of the Outrigger Canoes of Madagascar and East Africa,' *Man*, 20 (1920), art. 67, p. 136.



of outrigger stanchion, it is logical to suppose that it was brought in with one of the Indonesian migrations. However, whether it took one or two thousand years for the evolution of the East African stanchion to take place is impossible to say. At any rate, the double sprit was introduced to Madagascar by at least the tenth century A.D.; therefore, it is abundantly clear that neither the European spritsail nor the proto-Oceanic spritsail could have in any way been inspired by the other.

There is an astonishing correlation in the western distribution of the single outrigger and the proto-Oceanic spritsail. As we have seen, this sail has been reported from Sumatra, Ceylon, Madagascar, and Arabia. The single outrigger occurs in Madagascar (and the Comoro Islands), Ceylon (and South India and the Maldives), Nias and the Mentawai Islands off the west coast of Sumatra, and the Andamans and the Nicobars; nowhere else west of Sumatra is it found. Certainly the occurrence of the single outrigger rigged with a proto-Oceanic spritsail is more than a coincidence, and would seem to justify the conclusion that the single outrigger and the proto-Oceanic spritsail were introduced to Madagascar directly from Java or Sumatra.

If the proto-Oceanic spritsail followed the same line of development as its European prototype, we would expect the fore-edge of the sail to become laced to the fore sprit, which would become a true mast. As we have seen above, when sailing to windward, the sprits of the Madagascarene proto-Oceanic spritsail are placed as far apart as possible. This differs basically from the European spritsail, where the bottom of the sprit is always made fast to the mast.

When the fore-edge of the proto-Oceanic spritsail was fastened to the forward sprit, the after edge was also fastened to the after sprit; such a sail existed into historical times in Melanesia at Port Moresby in New Guinea (Fig. 3a).<sup>16</sup> The long, over-hanging spars were simply set on their bases on the bottom of the canoe. If the windward spar bent too much it was strengthened by the addition of another spar tied to it. As far as I know, this is the only place where this type of sail survived. This sail was a true fore-and-after, since it could be tacked by moving only the sheet.

The next step in the evolution of the Oceanic spritsail was the convergence of the two spars so that a narrow triangle was formed, with the two spars on the long sides and the apex pointed downward (Fig. 3b). It takes very little imagination to see how this rather peculiar sail evolved. If one will refer to Figure 2, it will be seen that the spars are already in a

<sup>16</sup> A. C. Haddon, *Canoes of Melanesia, Queensland, and New Guinea* (Honolulu: B. P. Bishop Museum, 1937), Fig. 132, p. 222.

triangular position when the craft is sailed downwind. Now referring to Figure 3a, it is obvious that if this type of sail is sailed downwind, and if the two spars are set in the bottom of the canoe, as in Figure 2, there will be an enormous excess of sail where the spars converge. Thus the obvious move was to make the sail like Figure 3b.

This triangular sail of the form of Figure 3b was that common to much of Polynesia at the time of the European intrusion into Oceania, although in some areas local evolution altered the form considerably. Like the rectangular spritsail from which this type of sail was undoubtedly devel-

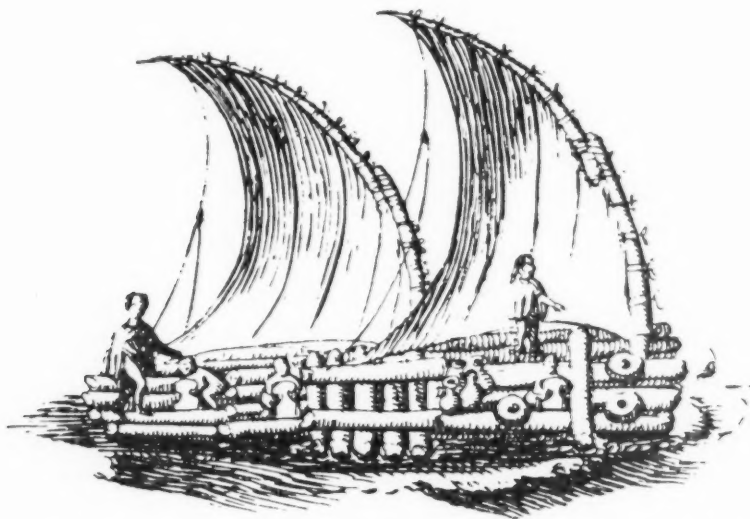


Fig. 4. Sailing *balsa* of Peru of 1615. Note the three men holding the centre-boards. The craft carries two Oceanic spritsails. (After Spilbergen, enlarged two times.)

oped, the Oceanic spritsail was also a true fore-and-aft sail, since it could be tacked head-to-wind by bringing the boat across the wind and shifting the sheet.

The New Zealand sail (Fig. 3b) did not come to a point at the lower end, so the sail was in effect quadrangular.<sup>17</sup> The boomsprit<sup>18</sup> was fastened to the mast with a loose rope cringle and the mast was stepped through a hole in a thwart and into a boss in the hull bottom.

A sail that was identical to that of the New Zealand sail existed at Samoa

<sup>17</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Figs. 141, 142, pp. 211-212.

<sup>18</sup> This aft sprit will be called a 'boomsprit' regardless of its shape, since it is laced to what might be called the foot of the sail.

into historical times.<sup>19</sup> The forward spar raked forward slightly more than that of the New Zealand example. This purely triangular sail was also known in the Marquesas Islands, but the sail appeared to be somewhat wider than either the New Zealand or Samoan sails.<sup>20</sup> It is also found in a wide form with straight sprits in the New Hebrides (Atchin Island, Malekula, and Tonga Islet, south of Espiritu Santo).

In the Manihiki area a spritsail was found with proportions identical to that of New Zealand and Samoa with straight sprits, but there was a stationary mast in addition to the forward sprit. The apex of the sail was either fastened to the base of the mast or stepped in a socket very close to the base of the mast. Hornell<sup>21</sup> refuses to recognize this sail as an Oceanic spritsail because the sail has a separate stationary mast and a halyard, and he classifies it as an Oceanic lateen. However, functionally, the sail is a spritsail, since with the base of the sail fastened to the base of the mast the sail could have been tacked head-to-wind as a true fore-and-aft sail; an Oceanic lateen could not. Hornell also states that this sail was almost identical with the Tuamotu lateen; this is not true, since the Tuamotu lateen is a true Oceanic lateen.

Hornell's classification of this sail as a lateen seems purely arbitrary, since the fore sprit is in actuality the mast in a spritsail, and adding another spar or permanent mast simply makes a double mast. According to Hornell's classification no modern yacht has a mast, since the sail is fastened to it: it would be a 'forward sprit.' A stationary mast was introduced in this and other cases so that the sail could be handled more easily; with the simpler form of spritsail (without a stationary mast) the sail and the sprits had to be taken down as a whole without the aid of a mast as lifting tackle. Besides Manihiki, a separate mast was also found with spritsails at Mailu in New Guinea and at Fagatau in the Tuamotu Archipelago, as will be seen shortly. The Manihiki and the Tuamotu examples undoubtedly owe their existence to the Tuamotuan lateen, and the Mailu to some local lateen, from which the idea of a separate mast became apparent.

The Oceanic spritsail was also known in South America in the more or less pure triangular form with straight sprits, where it survived on a shaped raft that can be shown to be of Oceanic origin. This American variety of the Oceanic spritsail was known off the Peruvian coast on the sailing *balsa*, which is now extinct; it survived on a similar raft on the

<sup>19</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Fig. 156, p. 228.

<sup>20</sup> Ibid., Fig. 21, p. 35.

<sup>21</sup> Ibid., pp. 186-188.

Brazilian coast known as *jangada*, although today the sail form in Brazil is slightly modified from the original triangular form.

Very probably the first sailing *balsas* of Peru had triangular Oceanic spritsails. Spilbergen<sup>22</sup> has presented one of the earliest illustrations of a sailing *balsa* off Peru in 1615 (Fig. 4), with two triangular sails which are drawn like Mediterranean lateens without masts: there is no boom at the foot, the seams are vertical, and the yard is lashed in the middle. No sails of this exact form are known in Oceania, or anywhere else in the world for that matter. It seems that the artist made certain errors in this illustration, which, when corrected, would give an Oceanic spritsail.

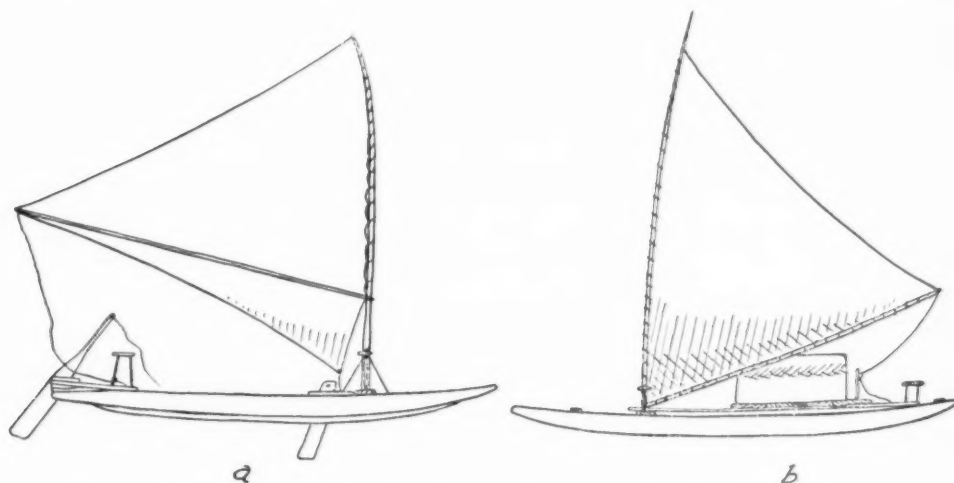


Fig. 5. Sailing rafts of Brazil. *a* is a modern type showing how European influence has caused the boomsprit of the original Oceanic spritsail to be moved up. (Modified from Hornell.) *b* shows the early form of the true Oceanic spritsail. (Original sketch by the author from model no. 53652 in the Peabody Museum at Harvard, acquired in 1899.)

Many early artists were not familiar with the boom that most Oceanic sails had along the bottom or after part of the sail. With a sail which lacked a boom at the foot, they were accustomed to drawing a deep curve along the foot; they put a similar upward curve in the boom at the foot of many Oceanic sails. This is actually done in some of Spilbergen's other illustrations which have booms; later illustrations and existing examples show these to be incorrect. It seems that the artist may have drawn these sails like 'Mediterranean lateens without masts,' being familiar with the

<sup>22</sup> G. de Spilbergen, *Miroir Oost & West-Indical* (Amstelredam: Ian Iansz, 1621), Plate 13, facing p. 60.

somewhat similar lateen sails that all square riggers carried as mizzens at the time. If a boom were added, and the foot of the sail curved up slightly, we have basically an Oceanic spritsail. It seems that the direction of the seams must also be wrong.

In later times all these *balsas* apparently carried square sails, which may have been inspired by the square sails on European square riggers, since some of the later pictures of *balsas* with square sails show them with bowlines on the edge of the square sail. Why the more efficient Oceanic spritsail would be abandoned for the less efficient square sail is difficult to see. However, the square sail may have been in use along with the Oceanic spritsail, since an old print by Benzoni, dated 1565<sup>23</sup> shows a square sail slung from a sheer mast on a small *balsa*. The fact that the sheer mast and square sail are found on reed *balsas* of Lake Titicaca in the mountains of Peru gives good corroborative evidence that the square sail and the spritsail may have existed side by side on seagoing *balsas*, the square sail being used on smaller *balsas*.

The Brazilian *jangada* had a purely Oceanic spritsail—a triangular sail between two long sprits (Fig. 5b). The resemblance between the sail of the early *jangadas* and the pure triangular spritsail of New Zealand and Samoa is striking. The fore sprit is stepped in an ingenious tabernacle and the tapered upper section curves back gracefully. The boomsprit is fastened to the fore sprit by a rope cringle. European influence in Brazil has modified this original Oceanic spritsail slightly, but its original ancestry is still evident. The top of the usually narrow triangle was widened, just as we have seen happened in some places in Polynesia, and the forward end of the boomsprit was raised so that it left a portion of the sail below the boom (Fig. 5a). However, the fact that the luff and the foot of the sail are almost exactly the same length shows the Oceanic ancestry quite clearly.

There is little doubt that the Brazilian *jangada* is the direct descendant of the Peruvian *balsa*. Since the idea must have been carried overland from Peru, it seems logical to suppose that the sails shown by Spilbergen should have boomsprits on the lower edge of the sail, and that the foot should have been the same length as the luff. Of course, there is a remote possibility that the boomsprit was discarded in Peru and that the sail was more or less correctly figured by Spilbergen. The fact that the Oceanic spritsail is found on these rafts shows that the Polynesians did reach South America.

The Hawaiian spritsail has the boomsprit curved in a long arc, and

<sup>23</sup> J. Hornell, *Water Transport* (Cambridge: University Press, 1946), Fig. 5, p. 42.



is known as the 'crab-claw' spritsail (Fig. 6a).<sup>24</sup> An identical form of sail was found at Mailu in New Guinea (Fig. 6b).<sup>25</sup> Both Haddon and Hornell<sup>26</sup> state that this latter sail is not a spritsail, but is a lateen, simply because there is a stationary mast. However, the base of the apex of the triangle is fastened to the base of the mast, so that in principle and operation the sail is identical to the Hawaiian form. The only difference in the two sails is the direction of the seams: in the Mailu sail the seams run parallel to the sprits and in the Hawaiian sail the seams run across the two sprits.

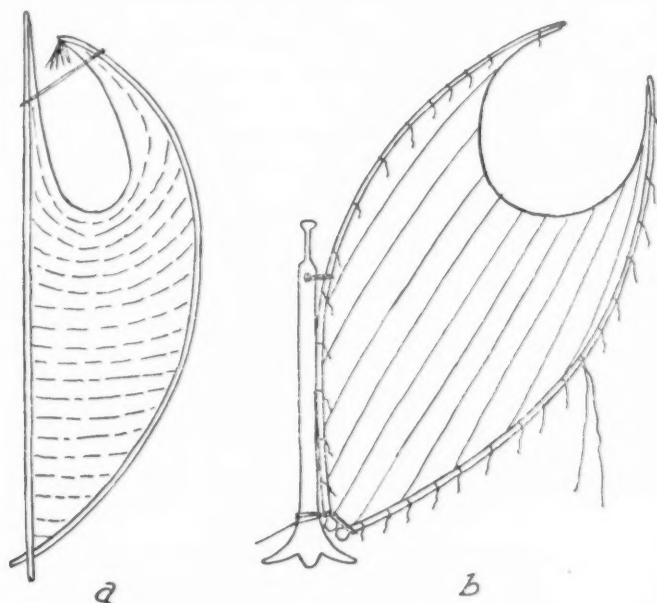


Fig. 6. *a* shows the Hawaiian 'crab-claw' spritsail. (Original sketch by the author from material published by Hornell.) *b* shows the Mailu, New Guinea, 'crab-claw' spritsail with a separate mast or a double sprit. (After Haddon.)

This same form of crab-claw sail was also found in Santa Cruz (with the seams parallel to the sprits), but here it was altered to an Oceanic lateen by hanging it from the centre of one yard and resting the apex on the forward part of the craft.<sup>27</sup> So similar is the shape of these crab-claw

<sup>24</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Figs. 1, 2, pp. 6-7.

<sup>25</sup> A. C. Haddon, *Canoes of Melanesia, Queensland, and New Guinea* (Honolulu: B. P. Bishop Museum, 1937), Fig. 140, p. 237.

<sup>26</sup> A. C. Haddon, *op. cit.*, p. 235; A. C. Haddon and J. Hornell, *Canoes of Oceania* (Honolulu: B. P. Bishop Museum, 1938), III, 46.

<sup>27</sup> A. C. Haddon, *Canoes of Melanesia, Queensland, and New Guinea* (Honolulu: B. P. Bishop Museum, 1937), Fig. 33, p. 49.

sails that it seems that they must have had a common origin. It might be suggested that the Oceanic lateen evolved from a spritsail set on an independent mast when the bottom fastening of a type as in Figure 6b slipped and allowed the apex to be swung forward, but the fact that the fore-end of the Oceanic lateen is always fastened to the deck shows that this was probably not the case.

The spritsail found in the Society Islands would seem to be a product of a rectangular sail and the conventional sprit (Fig. 7a).<sup>28</sup> It is difficult to see how this could have evolved from the triangular Oceanic spritsail, but it is easy to see how the Melanesian spritsail (Fig. 3a), influenced by the Oceanic spritsail, could be changed to the Society spritsail. The fact that the mast (or fore sprit) is absolutely vertical would lend support to the latter theory. Hornell<sup>29</sup> states that this sail was a local development in the Society Islands, since he claims that it was not found elsewhere.

There was a spritsail at Fagatau in the Tuamotu Archipelago, but Hornell<sup>30</sup> also refuses to recognize it as a spritsail because there is a mast and halyard present (Fig. 7b). However, as we have seen above, there is no reason not to classify such a sail as a spritsail. There seems little doubt that this sail is closely related to the spritsail of the Society Islands, so close are the two groups geographically. Hornell<sup>31</sup> doubts the authenticity of this sail which is on a model, for he states that 'The rig of this model has no parallel anywhere and contradicts that shown by Paris in his model.' However, Wilkes<sup>32</sup> presents a sketch showing the ladder-work on the masts to which Hornell apparently objects, and he<sup>33</sup> also shows a sketch which affords convincing corroboration of Paris' model.

Evidence corroborating the sail shown in Figure 7b is contained in a model from the Tuamotu Archipelago in the Peabody Museum of Harvard (no. 64868). The model represents a two-masted, single outrigger voyaging canoe. The sails are made of rectangular pieces of mat with a boom along the foot and the leech (Fig. 7c). This sail would also seem to give support to the suggestion that this type was originally a spritsail of the type shown in Figure 3a, and was influenced by the Oceanic spritsail.

There is evidence that the Oceanic spritsail was also present in Micronesia, for in the eastern Carolines at Ponape we find a sail of the same proportions as the New Zealand, Samoan, Marquesan, and Manihiki

<sup>28</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Figs. 76-81, pp. 115-119.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid., p. 91.

<sup>31</sup> Ibid.

<sup>32</sup> C. Wilkes, *Narrative of the U. S. Exploring (1838-42)* (Philadelphia, 1845), I, 327.

<sup>33</sup> Ibid., I, 345.

spritsails, but with the forward sprit raked aft instead of forward so that the after sprit was very nearly parallel to the deck line (Fig. 8).<sup>34</sup> It seems that this is a most important link in the evolution of the Oceanic lateen, for it was just such a sail that probably led to the first Oceanic lateen.

While it is my contention that the Oceanic spritsail was the original sail used in Micronesia, there are several points that should be considered before accepting this as a fact:

(1) It is in the central Caroline Islands that the only example of the double canoe is found in the whole of Micronesia, being absent in the Marshall and Gilbert Islands to the east;

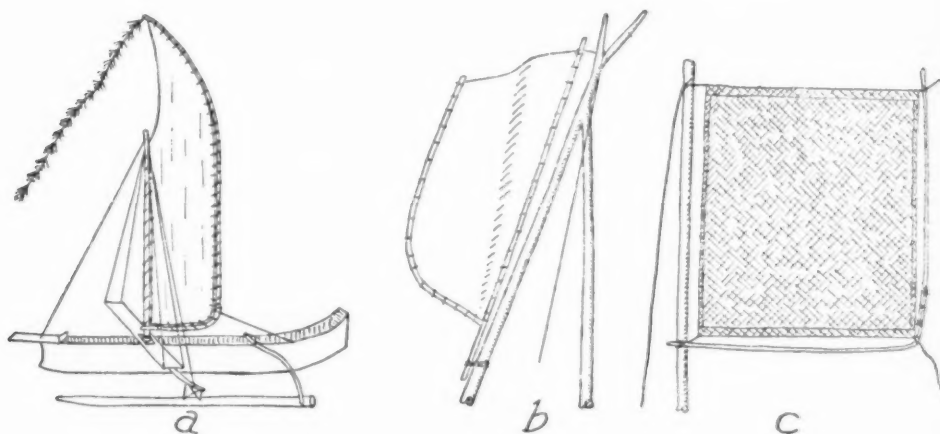


Fig. 7. *a* shows the Society Island spritsail on a single outrigger, which was sailed in the same direction on both tacks. (After Hornell.) *b* shows the Tuamotu spritsail on a sheer mast of a double canoe. (Original sketch by the author from a photograph of a model published by Hornell.) *c* shows another Tuamotu spritsail found on a single outrigger. (Original sketch by the author from model no. 64868 in the Peabody Museum at Harvard.)

(2) It is at Ponape in the eastern Carolines that the only known example of the Oceanic spritsail is found in Micronesia;

(3) It is at Ponape that the ruins of a once mighty city are found with buildings of massive stones with walls ten to fifteen feet thick showing a continental Asiatic influence. The city is complete with water-ways for communication.

Since each of these facts can be shown to be characteristic of Polynesia

<sup>34</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Fig. 289, p. 400.



at some point, the three together could be used to indicate a Polynesian migration into Micronesia, or a proto-Polynesian migration through Micronesia eastward. However, there does not necessarily have to be any relation between the three. It is an acknowledged fact that there are Polynesian racial strains in various parts of Micronesia, and the double canoe can probably be attributed to this. The spritsail of Ponape must be accepted as the indigenous sail of the area since no other more primitive sail types are known in Micronesia; it is too much to ask one to believe that a square or lug sail was the original sail of Micronesia and that now it has been completely displaced. Until we have archaeological evidence, it is not safe to say whether the mysterious ruins of Ponape represent evidence of the original journey of the proto-Polynesians through Micronesia, or evidence of a Polynesian migration into Micronesia.

### III

With a spritsail similar to the Ponape sail it would probably be necessary to provide some sort of a brace for the forward sprit (actually the mast) when the size of the sail was increased. With a large sail the weight of the sprits and sail alone would tend to tear out any forward steps, unless they were made very strongly.

The Polynesians avoided this structural weakness when increasing the size of the sail by having the forward sprit vertical or even raked forward slightly, so that the fore sprit did not set up any strong fore-and-aft stresses in the supporting members. However, the great fault in the Polynesian spritsail, as typified by the New Zealand, Marquesas, Manihiki, and Samoa form, was the fact that the centre of effort was very high—higher than there was any necessity for it to be (Fig. 9a). This must have limited the sail size to a considerable extent, and proved dangerous in puffy airs. The Ponape type had a centre of effort about equivalent to a modern marconi-rigged sail (Fig. 9b). In fact, a comparison of the three sails in Figure 9 will show that the Polynesians (or the Micronesians) invented the marconi rig centuries before it was evolved in the West by the shortening of the gaff until the gaff vanished. The Oceanic spritsails differ from the marconi rig only in proportions.

It was probably when the increased size of the Ponape type of sail necessitated additional support that the 'true' mast came into use. The simplest device would be a 'prop' with a fork at one end. Just such a prop mast was actually found in western Polynesia centering in Tonga and Fiji at the time of European arrival (Fig. 10a).<sup>35</sup> This prop mast is also

<sup>35</sup> Ibid., Figs. 189-193, pp. 266-271.

found in the D'Entrecasteau Islands on Goodenough Island with a triangular sail.<sup>36</sup>

This form of mast and sail is called the 'primitive lateen' by Haddon and Hornell in *Canoes of Oceania*, and I shall refer to it as the same. However, Haddon and Hornell<sup>37</sup> claim that the ancestor of the primitive lateen was what they call the 'proto-lateen,' known today only from a limited area in Indonesia centred in Bali and East Java. This latter sail is characterized by a triangular sail (of the Oceanic spritsail proportions) car-

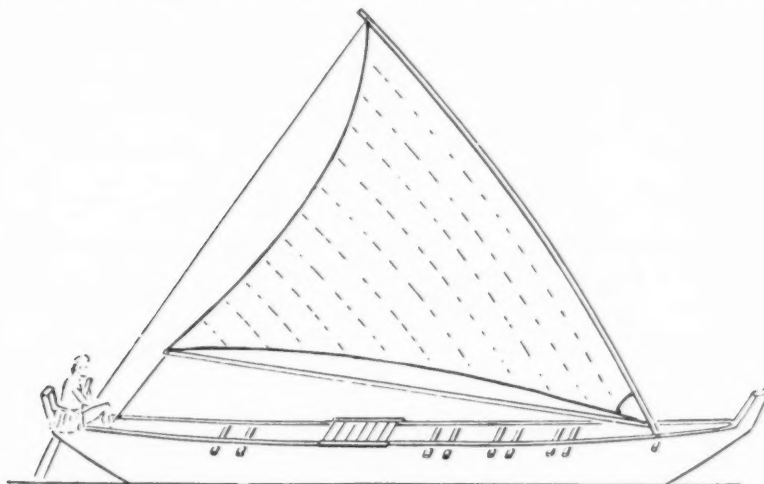


Fig. 8. The Ponape spritsail of Micronesia. (After Hornell.)

ried apex-down and slung from a short peg in the masthead with a loop of rope hitched to the yard. A photograph that Hornell<sup>38</sup> published of this type of craft showed a short, stubby mast with the fore-end of the forward sprit (yard) stepped in the bows (Fig. 11b).

Why Haddon and Hornell consider that this form was the 'ancestor' of the primitive lateen (with a prop mast) is not evident, but it seems to this writer that it is purely arbitrary. I consider that basically they are both identical forms, but are local variations of the same idea—a brace for the sprit. It would seem that size was a very important factor in determining what details were used. The sail could not be very big if it were to be hung manually on a peg on the mast, and this is obviously the reason why the mast was kept short and stubby. This practice would be impossible

<sup>36</sup> A. C. Haddon and J. Hornell, *Canoes of Oceania* (Honolulu: B. P. Bishop Museum, 1938), III, 52.

<sup>37</sup> *Ibid.*, III, 48.

<sup>38</sup> J. Hornell, 'Outrigger Canoes of Indonesia,' *Madras Fisheries Bulletin No. 12* (Madras: Government Press, 1921), Plate XIII, Fig. 24.

with a large sail, and a forked prop would seem the logical development for larger sizes. Proof of this would seem to be the fact that today, while the mast peg and yard loop are still used on small craft, larger craft use a halyard.

The most practical arrangement was a halyard slung from the head of a permanent mast. It may seem strange that the mast and the halyard had to be 'invented' at this late date, for the Egyptians, Greeks, and Romans all knew the halyard. Certainly the Indonesians who were familiar with the Boro Budur type of great voyaging ships did not need to invent the individual mast and halyard. Technically the forward sprit on the Oceanic spritsail is a mast, so the stubby mast introduced was a 'secondary' mast, when compared with modern fore-and-aft rigs. Even with a mast and halyard the rig did not become clean-cut with a true mast and a true yard, because the fore-end of the yard was almost without exception still fastened to the forward part of the craft, and actually the combination of this yard and the mast formed the true mast. This point Haddon and Hornell have completely ignored. However, once the prop mast was conceived, the halyard was an easy development, and undoubtedly can be attributed to diffusion from the west, rather than independent invention.

Haddon and Hornell<sup>39</sup> assume that the true Oceanic lateen (with halyard) was developed in Micronesia, and they state that neither the Oceanic spritsail nor the true Oceanic lateen were known in Indonesia. This is very difficult to understand, especially in view of the fact that Hornell<sup>40</sup> had previously published a photograph of a true Oceanic lateen on a Madura (East Java) coaster (with the seams of the sail perpendicular to the yards) (Fig. 11a).<sup>41</sup> A similar sail shape is found on the well-known and much-illustrated Java (Madura) sea prau, where there are two sails, with a large main and a smaller mizzen.<sup>42</sup> An almost identical arrangement is found at New Caledonia,<sup>43</sup> Fiji, Tonga, and Mangareva.<sup>44</sup> The

<sup>39</sup> A. C. Haddon and J. Hornell, *Canoes of Oceania* (Honolulu: B. P. Bishop Museum, 1938), III, 55.

<sup>40</sup> J. Hornell, 'Outrigger Canoes of Indonesia,' *Madras Fisheries Bulletin No. 12* (Madras: Government Press, 1921), Plate XIV.

<sup>41</sup> Thus Haddon and Hornell's (*Canoes of Oceania* [Honolulu: B. P. Bishop Museum, 1938], III, 55) statement that 'It may be taken as reasonably certain that the Oceanic lateen in both its later forms was developed from the Indonesian proto-lateen after the migration of the proto-Samoans from the Indonesian area, consequent upon an influx of people from the mainland of Asia using a quadrilateral sail and either a tripod or a sheer mast' is not consistent with the facts and thus is not at all plausible.

<sup>42</sup> H. W. Smyth, *Mast and Sail in Europe and Asia* (London: Wm. Blackwood & Sons, Ltd., 1929), pp. 413-414.

<sup>43</sup> A. C. Haddon, *Canoes of Melanesia, Queensland, and New Guinea* (Honolulu: B. P. Bishop Museum, 1937), p. 9.

<sup>44</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), pp. 93, 270, 313.

Mangarevan, New Caledonian, Fijian, and Tongan sails are identical to the Madura type lateen in their narrowness (Figs. 10a & 11a), in the seam arrangement, and in the position of the mast, far aft.

There was apparently a Madura type lateen found in the Tuamotu Archipelago, but the sail design is known only from a model constructed under Admiral Paris' direction.<sup>45</sup> The recent arrival of this lateen in the Tuamotus is shown by the fact that it was in the process of displacing the spritsail shown in Figure 7b. The sail shown on Paris' model is wider than the Madura type lateen and the mast is farther forward, but these details may be in error, for Paris apparently got his proportions of the sails from descriptions by the natives.

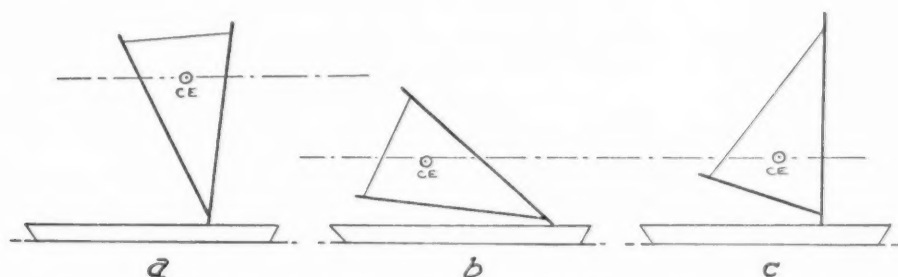


Fig. 9. *a* shows the typical Polynesian spritsail with straight sprits. *b* shows the Ponape type of spritsail. *c* shows a modern marconi rig. (Original.)

It is apparently the shape of this particular type of sail, rather than the type of mast (prop or mast with halyard) that has influenced Hornell<sup>46</sup> in the distribution he shows for his 'primitive lateen.' Hornell has defined the primitive lateen as a lateen with a prop mast but without a halyard; actually the only areas in Polynesia where this type of rig was known were Tonga and Fiji. In all the other areas that Hornell includes in the map under 'primitive lateen,' the sail is similar to the Indonesian lateen illustrated by Hornell from Madura (Fig. 11a). In future discussion I shall call this sail the 'Madura type lateen,' which will include the 'primitive' lateens of Tonga and Fiji.

Running the seams perpendicular to the yards was apparently a later development introduced from Indonesia with this Madura type lateen, for almost without exception all these narrow lateens have the seams in this manner. It was obviously stronger on a long, narrow sail, and the value of the improvement must have been quickly recognized, for it apparently influenced some of the Oceanic spritsails in Polynesia, e.g., Ha-

<sup>45</sup> Ibid., Figs. 58, 59, pp. 80-83.

<sup>46</sup> Ibid., p. 444.

waii and the Marquesas; this seam arrangement was apparently adopted in Micronesia only in the Mariana Islands.

It does not seem that the Micronesians developed the true Oceanic lateen independently; rather it would seem that they must have been influenced by Indonesians in adapting a mast and a halyard to their original Oceanic spritsail, which probably was similar to the Ponape example. The similarity of the Marianas sails to the Madura type lateen might suggest this. However, it does seem that the Micronesians may be credited with the development of the Oceanic lateen to its final high degree, and it is clear that there was frequent travel between the various island groups, so homogeneous are the sail and the hull in general characteristics within Micronesia. The Fiji Islanders were influenced by Micronesia in making their lateen wider (Fig. 10b).

That Hornell<sup>47</sup> had little or no concept of the actual evolution of the Oceanic lateen is shown by his comments concerning the Ponape spritsail: 'It is therefore disconcerting to find . . . sails without masts; this method was formerly employed by the Maoris of New Zealand . . . and to find it also in use in Micronesia is very remarkable.' Quite to the contrary; I would consider it very remarkable if a more primitive ancestor of the lateen were not to be found on some remote island or on some primitive fishing craft.

Haddon and Hornell's<sup>48</sup> statement that the 'triangular sails in Oceania have been derived from primarily tentative and temporary devices, formed of interplaited palm leaves, usually of the coconut palm,' is quite fanciful. They further state that the quadrilateral sails of New Guinea (what I have called the 'Melanesian spritsail'—Fig. 3a) owe their origin to a different source. It is this writer's opinion that these temporary sails, made from the interwoven branches of two palm leaves and only found on the smallest of craft, were indeed copies of the larger Melanesian spritsail type. However, it does seem that some such mechanism may have led to the original lacing of the large mat sails to the two sprits. Haddon and Hornell completely disregard the effect that size has on the design of a sail; these temporary sails are only found on the smallest craft. In fact, they are not consistent, since they admit that the proto-Polynesians brought the triangular Oceanic spritsail with them, yet they suggest that evidence of its evolution exists in Oceania.

H. H. Brindley<sup>49</sup> has suggested that the Oceanic lateen sail evolved

<sup>47</sup> Ibid., p. 400.

<sup>48</sup> A. C. Haddon and J. Hornell, *Canoes of Oceania* (Honolulu: B. P. Bishop Museum, 1938), III, 45.

<sup>49</sup> H. H. Brindley, 'Early Pictures of Lateen Sails,' *Mariner's Mirror*, 12 (1926), pp. 9-22.



from the rectangular Boro Budur type of balance lug by a continual convergence of the two spars until a triangular form was obtained. If this were true there would be no reason for the forward end of the triangle of the lateen to be fastened firmly to a stationary point of the hull; there would be a tack line. The fact that it is made fast shows the sail's ancestor was an Oceanic spritsail. Brindley does not mention the Oceanic spritsail or the proto-Oceanic spritsail, so he has completely missed the evolutionary chain which becomes evident by a complete analysis of the available evidence. Actually, there has been a slight forward convergence of the yards in some of the Javanese rectangular balance lugs,<sup>50</sup> but this seems to be as far as this line of evolution went. It was probably influenced by the Madura type lateen.

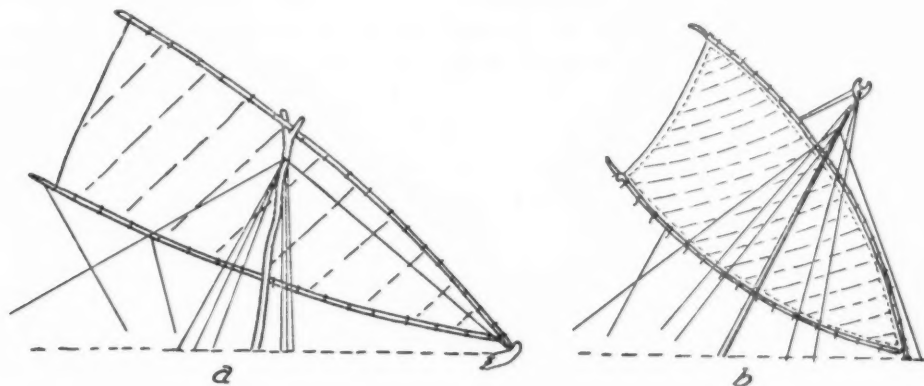


Fig. 10. *a* shows the Oceanic lateen found on Tongan double canoes. (Original sketch by the author from material presented by Hornell.) *b* shows the Oceanic lateen that was used on the single outriggers of Fiji. (After Hornell.)

In a map of the sail distributions in Oceania, Hornell<sup>51</sup> does not by any means give the full range of the Oceanic spritsail, since he fails to recognize five valid examples:

- (1) The Caroline spritsail of Ponape (for no apparent reason);
- (2) The New Guinea spritsail of Mailu (because of the mast);
- (3) The Tuamotuan spritsail of Fagatau (because of the mast);
- (4) The Samoan spritsail (for no apparent reason);
- (5) The Manihiki spritsail (because of the mast).

Hornell apparently omitted these examples as he wanted only one type of

<sup>50</sup> R. T. Pritchett, *Shipping and Craft* (London: Edward Arnold, 1899), p. 171.

<sup>51</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), p. 444.

sail to represent each area and he had other sail types in these areas. But such was not the case.

These examples, along with those of Hawaii, New Zealand, New Hebrides, the Society Islands, the Marquesas, and South America, show that the Oceanic spritsail had a distribution from South America to Polynesia through Micronesia to Melanesia (Fig. 12). The masts in the Mailu, the Manihiki, and the Fagatau cases can be explained easily by diffusion; there is no evidence to indicate when these masts were introduced.

The evidence presented by Haddon and Hornell shows that by the sixteenth century when Europeans arrived in the Pacific, the lateen had been perfected to an astounding degree and almost universally distributed in Micronesia. By the time many of the eastern Polynesian islands were first visited (many not until the nineteenth century) the Madura type lateen was found to have driven a wedge through central Polynesia, reaching as far as the Tuamotu Archipelago, but it had not spread to either northern or southern Polynesia (Fig. 12). The Fijian primitive lateen (with a prop mast) changed to the true lateen (with a halyard) within historical times,<sup>52</sup> and the sail shape was apparently influenced by the Micronesian lateen.

#### IV

The available evidence seems to point clearly to the development of both the Oceanic spritsail and the Oceanic lateen from an Indonesian form of proto-Oceanic spritsail which still survives in Sumatra, Ceylon, and Madagascar. From this proto-Oceanic spritsail the Melanesian type of spritsail was developed, and this led to the triangular Oceanic spritsail (Fig. 13). The Oceanic spritsail is not known in Indonesia today, but certain of the Bali and East Java lateens have a sail and spars identical in shape and proportions to many of the Oceanic spritsails (Fig. 11). Thus, it seems that the Oceanic spritsail must have developed in Indonesia, perhaps in either Java or Sumatra. Likewise, the Oceanic lateen probably developed in either Java or Sumatra, for the two basic types of lateens (Micronesian and Madura type) found in Oceania have prototypes in the Java area.

One should not draw the conclusion that I am implying that Polynesia and Micronesia were settled from Java or Sumatra, for I am not. However, most scholars feel that the proto-Polynesians coming from the west did possess the triangular Oceanic spritsail, and it seems that this must have been of Indonesian origin or inspiration. It seems certain that at an early age the whole of Polynesia and Micronesia was using the

<sup>52</sup> Ibid., p. 344.

triangular Oceanic spritsail; in Polynesia various modifications of a more or less vertical model were developed. In Indonesia and Micronesia the Oceanic spritsail developed to the Ponape form, which led to the Micronesian lateen (Fig. 13); both of these may have been influenced by Indonesian types. However, there is a possibility (but not a probability) that the Ponape sprit took its final form only after the Micronesian lateen was fully developed.

In the summer of 1947, the world was startled by the news that six Norwegians had sailed a primitive raft 4300 miles across the Pacific from Peru to Raroia Reef in Polynesia in a little more than three months. The success of the trip gave Thor Heyerdahl, leader of the expedition, all

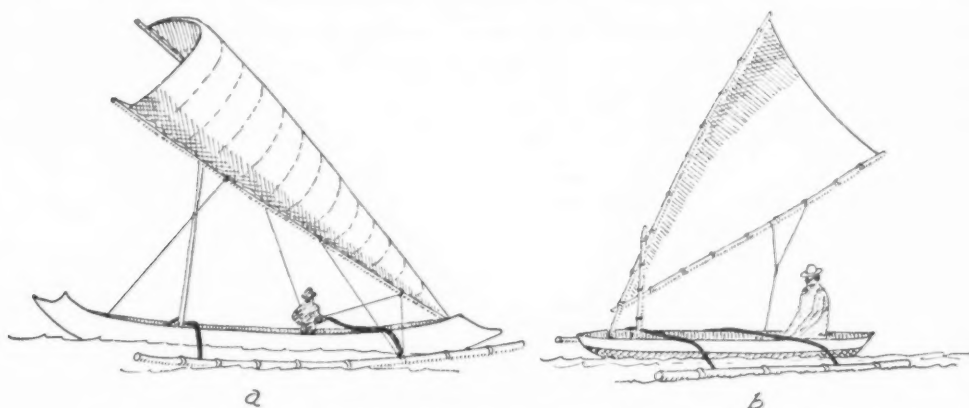


Fig. 11. *a* shows an Oceanic lateen on a double outrigger of Madura, East Java. *b* shows an Oceanic lateen on a small fishing craft of Bali. (Original sketches by the author from photographs by Hornell.)

the ammunition he needed to proclaim as a proven fact his theory that Polynesia was settled from California and Peru by Indians who drifted across the Pacific as he had done. All of the lay world who read his fascinating book *Kon-Tiki*<sup>53</sup> firmly believe to this day that this is how the South Seas were settled. However, most of the scientific world feels that the Polynesians came from somewhere to the west, not the east. Heyerdahl presented his theory in a scientific journal<sup>54</sup> and there immediately followed a violent argument with Robert Heine-Geldern, eminent anthropologist and archæologist.<sup>55</sup>

<sup>53</sup> T. Heyerdahl, *Kon-Tiki* (Chicago: Rand McNally & Company, 1950).

<sup>54</sup> T. Heyerdahl, 'The Voyage of the Raft *Kon-Tiki*,' *Geographical Journal*, CXV (1950), 20-41.

<sup>55</sup> R. Heine-Geldern, 'Heyerdahl's Hypothesis of Polynesian Origins: A Criticism,' *Geographical Journal*, CXVI (1950), 183-192; T. Heyerdahl, 'Voyaging Distance and Voyaging Time in Pacific Migration,' *Geographical Journal*, CXVII (1951), 69-77; R. Heine-Geldern, 'Voyaging Distance and Voyaging Time in Pacific Migration,' *Geographical Journal*, CXVIII (1951), 108-110.



While this article is not the place to argue the finer points of this problem, certain defence must be made of the hypotheses already presented here that the Polynesians reached South America on *balsa* rafts with Oceanic spritsails, since it has never been shown before that the sailing rafts of South America ever carried Oceanic spritsails.

In a few words, Thor Heyerdahl proposed that the Polynesian islands were settled by two groups of American immigrants, one sailing from Peru in sailing rafts with square sails about A.D. 450, and the other sailing from California in double canoes about A.D. 1100. He believes that the whole population complex of Polynesia is essentially due to a blending of these two elements.

Heyerdahl's original thesis apparently came from a realization of the fact that nearly all cultural parallels and analogies previously noted between early America and Polynesia were centred around either Peru or among the north-west American Indians, and also from a realization of the fact that strong currents set away from these two areas right into Polynesia. Heyerdahl's belief is apparently that Indians in both areas were lost or forced out to sea and thus accidentally discovered the various islands in Polynesia. He then states that 'Once the discovery is made and the road back known, only then will good sailing craft, even beating against the wind, take the skilled voyager back and forth between points known to him. Such was later the case in Polynesia.'<sup>56</sup> Thus Heyerdahl is saying that Polynesian islands were discovered by Americans by chance, and that once they got there, they sailed back.

Heyerdahl is convinced that the South American immigrants made the voyage in *balsas* with square sails; however, he states that the *Kon-Tiki* voyage showed that a *balsa* raft could only sail before the wind, and could not sail even a few miles to windward.<sup>57</sup> Thus he has deposited the proto-Polynesians in Polynesia with a craft that can only go before the wind. Since he assumes that the islands are uninhabited, these drifters obviously cannot borrow a more efficient sail with which to sail back to Peru and bring more settlers. Their only alternative is to sail farther to the west. In doing so they would eventually reach Micronesia in the north and Melanesia in the south. Since both these were alien and warlike people it is difficult to see how the proto-Polynesians could acquire the knowledge of a sail that would enable them to sail back to South America, now over seven thousand miles to windward.

<sup>56</sup> T. Heyerdahl, 'Voyaging Distance and Voyaging Time in Pacific Migrations,' *Geographical Journal*, CXVII (1951), 73, 77.

<sup>57</sup> T. Heyerdahl, 'The Voyage of the Raft *Kon-Tiki*,' *Geographical Journal*, CXV (1950), 30.

However, if we attack the problem from the other angle, it immediately becomes more plausible. In Hawaii, giant logs of Oregon pine drifted ashore occasionally and were highly prized, often serving as entire hulls. Sometimes logs were kept for years before a pair of nearly equal sized logs was obtained for making double canoes. Also, the migrations of birds, notably the golden plover, takes place periodically from Alaska to central and eastern Polynesia with Hawaii as the halfway resting place. These two facts would indicate to the Hawaiians that there was land somewhere to the east. It is now an acknowledged fact that New Zealand was discovered by Polynesians observing the annual migration of the long-tailed cuckoo of New Zealand to and from the islands of the central Pacific.

Likewise, since there are strong drift currents setting from Peru to central Polynesia, there would certainly be drift material wash up on the eastern beaches of the easterly islands to indicate that there was land farther to the east. In historical times there are records of three vessels that have been wrecked in the Pacific, at varying distances off the South American coast. One followed almost the same identical course as *Kon-Tiki*. Thus the Polynesians may have had many reasons for believing that there was land to the east (probably islands, since they were not familiar with anything as big as a continent).

Heyerdahl showed by his *Kon-Tiki* voyage that even with a good fore-and-aft craft capable of sailing into the wind, it would be a tough beat from Polynesia to Peru by the course he took. However, there is a southern route where the prevailing winds and ocean currents move in the opposite direction, from west to east. In the winter of 1952 Dr. Thomas Davis crossed this southern route in a 48-foot ketch from New Zealand to Peru.<sup>58</sup> His voyage, while admittedly not on a raft, showed that the enormously seaworthy sailing raft could do the same thing; the return trip could be made by Heyerdahl's more northern *Kon-Tiki* route.

It seems certain that the Heyerdahl camp will accept the fact that the South American sailing rafts possessed Oceanic spritsails gratefully, and still claim them as native South American. With such a good fore-and-aft rig, it is obvious that they could return to South America. However, here we have an important point, for Heyerdahl states that the only reason the ancient Peruvians discovered Polynesia was because their square rig was not good enough to get them back to Peru, after being forced out in a storm or getting lost. Now if we give them a rig with which they can sail into the wind, there is no reason for them to ever reach Polynesia, since no one who lived on a land continent would set sail over the empty ocean

<sup>58</sup> *Time*, 15 September 1952.

in the vague hope of finding new land. To accept an American settlement of Polynesia we are asked to believe that the American Indians reached Polynesia in possession of a complete sail and rig which is without doubt of Indonesian ancestry, as we have seen above. Actually the full answer lies in the origin of the South American raft.

Everywhere throughout Oceania there is evidence of the present or former use of sailing rafts. Traditions of Micronesia, New Zealand, the Marquesas, Tonga, and Samoa tell of the use in former times of rafts in connection with the movements of tribes and with the transport of blocks of stone of great size.<sup>59</sup> In Mangareva, virtually the easternmost island of Polynesia (excepting Easter Island) sailing rafts approximating the form of the Peruvian *balsas* were used until recently, although they were fitted with a Madura type lateen sail which had driven a wedge through central Polynesia.

Sailing rafts are also known in Formosa and India (Fig. 14). The sailing rafts of Formosa, India, Peru, and Brazil all have one peculiar characteristic in common: thin centre-board steering planks were let down between the logs. Two are used with the Indian sailing catamaran, the *kola maram* of the Coromandel coast, along with a broad steering paddle. The Formosa raft has three broad centre-boards, one amidship at the stern, and one at each side forward of the stern. In South America the number of centre-boards varies depending on the size of the raft; in Spilbergen's craft (Fig. 4) there are three evident.

In considering the origin of the South American *balsas*, Hornell<sup>60</sup> dismissed an African origin, but considered a direct relationship with Polynesia or Melanesia more probable. Earlier Hornell<sup>61</sup> had suggested that the hypothesis that the South American rafts were transmitted coastwise from the Asiatic mainland had much to recommend it. Later Hornell and Haddon<sup>62</sup> apparently decided that there was not enough evidence to warrant either of these assumptions, for they state that 'However, we must not overlook the possibility that the invention of the balsa raft has been independent and without outside connection or introduction, and that it has followed a course of development parallel to that which has occurred in Polynesia and Formosa.'

The settling of Polynesia took place rather late in the history of the Far East, starting about the fifth century A.D. If the South American In-

<sup>59</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), pp. 246, 273, 330, 435.

<sup>60</sup> J. Hornell, 'South American Balsas,' *Mariner's Mirror*, XVII (1931), 347-355.

<sup>61</sup> J. Hornell, 'South American Balanced Canoes,' *Man* (1928), art. 102.

<sup>62</sup> A. C. Haddon and J. Hornell, *Canoes of Oceania* (Honolulu: B. P. Bishop Museum, 1938), III, 14.

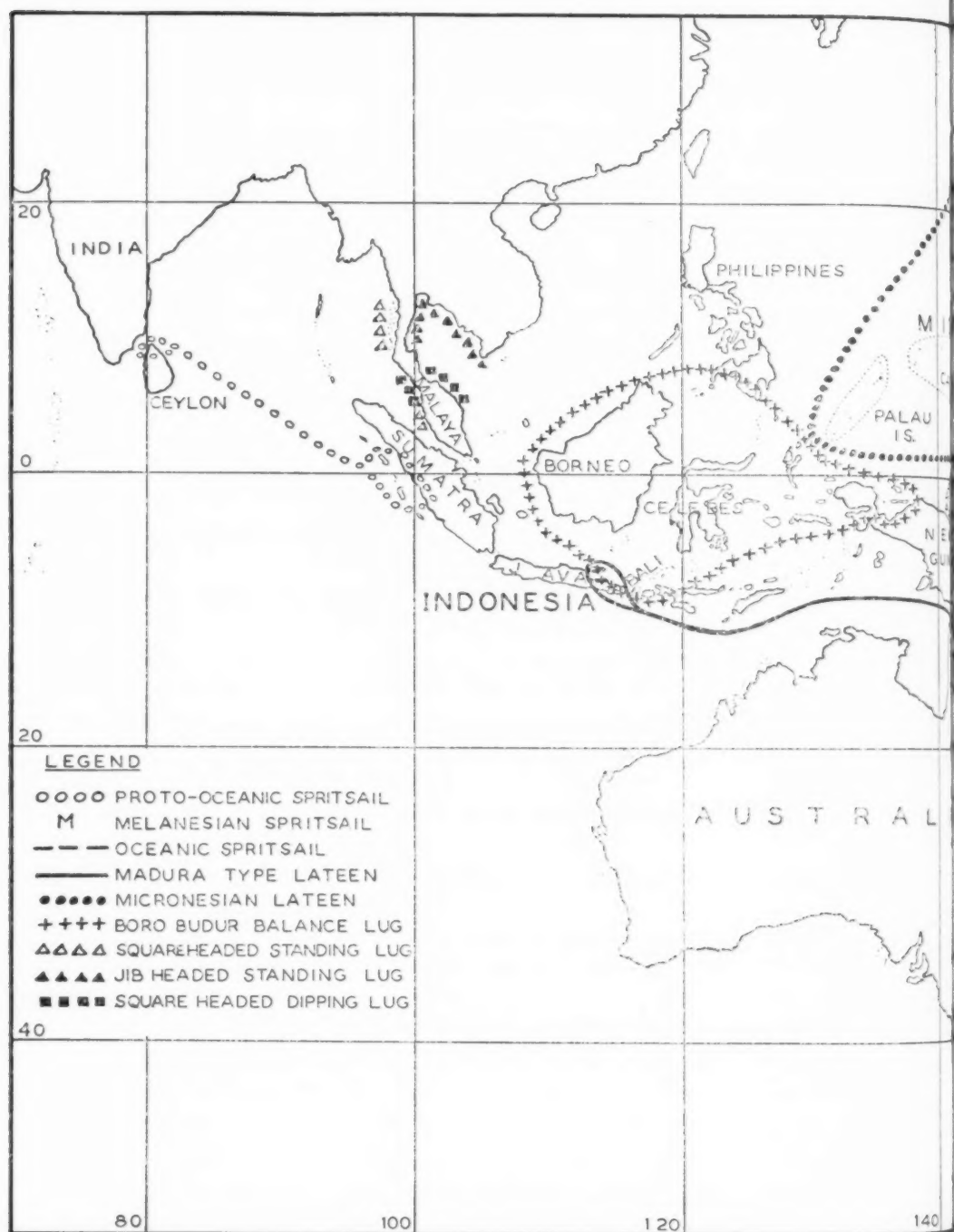


Fig. 12. Distribution map for the sail



ap for the sail esia, Melanesia, Micronesia, and Polynesia.



dians invented the sailing raft with multiple centre-boards, it must have been carried to Formosa and India sometime after the fifth century. Both these rafts have undergone considerable change from the original prototype, and neither carries an Oceanic spritsail: one carries a Chinese lug and the other carries a modified Oceanic lateen. While these changes could have taken place since the fifth century, it does not seem probable. However, even more incredible is how these sailing rafts could have reached Formosa and India with enough Polynesians to insure their survival. It seems that the original home of the sailing raft must have been centrally located in Indonesia.

The absence of the single outrigger in South America has always been used as an argument against Polynesian voyages to South America. However, this does not seem to be a problem one way or the other. The single outrigger has its limitations, and was not necessarily suited to the South American coast. On the other hand, we have seen above that the sailing raft was formerly much more used in Polynesia before the outriggers and the double canoes came into common use. Thus it is reasonable to suppose that when the Polynesians sailed the rafts to South America, the single outrigger was not much used; certainly it was never used for ocean voyages.

However, when it can be shown that the earliest known sails found on the Peruvian and the Brazilian rafts are both of Polynesian origin, it can be said quite definitely that the South American sailing rafts are also of Polynesian origin, and that therefore the Polynesians *did* reach the South American coast. That the Polynesians reached South America over several thousand miles of the open Pacific is not at all surprising, since they carried out well-authenticated expeditions in every direction in the Pacific:<sup>63</sup>

1. South-west from Tahiti and Rarotonga to New Zealand.
2. Northward to Hawaii and back
3. Eastward to Easter Island
4. Southward to the Antarctic Circle into the region of floating ice and mountainous waves.

The combination of the shaped raft, adjustable centre-boards, and a sail of Oceanic origin leave no doubt of the Oceanic origin of the South American sailing raft, for such a complex could just not have been developed independently in two different areas on the shores of the same sea.

That the people of Oceania made great use of the sailing raft is nothing

<sup>63</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), p. 439.

new. Over a quarter of a century ago Hornell<sup>64</sup> stated that 'The earliest navigators of the Pacific were almost certainly raftsmen rather than boat people, their craft varying from seagoing sailing catamarans of large size to small and crank reed and log rafts.' Later Friederici<sup>65</sup> agreed that large rafts of a developed type were used in remote times by the Malayo-Polynesians in their migrations.

By the marginal distribution of the Madura type lateen (relative to the Micronesian lateen), and because of the fact that there are still sails in Indonesia (Madura) with an identical shape and seam orientation, it seems that this form of sail probably spread directly from Indonesia. So widely distributed was the Micronesian lateen by the sixteenth century in Micronesia and so similar were the hulls of the voyaging outriggers that the Micronesian lateen sail must have developed considerably before the sixteenth century. If the proto-Polynesians passed through Micronesia on their way to their new homes, as many scholars believe, it is evident that the Micronesians probably did not have any better sail than the Polynesian spritsail, otherwise the Polynesians would have copied it. Many scholars place this proto-Polynesian migration soon after the start of the Christian era.

The fact that the proto-Oceanic spritsail went west and the Oceanic spritsail went east might seem to indicate that the westward migration was earlier. However, it probably means only that the westward migrations were from a different locale that still used the more primitive proto-Oceanic spritsail. This is logical, since the sail is still found in Sumatra today.

Therefore, all that can be said about the relative chronology of the Oceanic spritsail and the Oceanic lateen is that the original sails were undoubtedly spritsails which probably had an Indonesian origin, that the Micronesian lateen must have been fully developed considerably before the sixteenth century, and that the Madura type lateen was probably introduced to central Polynesia directly from Indonesia. Whether the development of the Micronesian lateen can be equated to this latter movement, whether the idea came to Micronesia directly from Indonesia or whether it developed independently in Micronesia is not known. Other lateens outside the area covered by the Micronesian lateen and the Madura type lateen are the result of diffusion from one of the two areas. Thus the Santa Cruz lateen seems to be basically a New Guinea (Mailu) 'crab-claw' spritsail.

<sup>64</sup> J. Hornell, 'Catamarans and Reed Rafts,' *Man in India*, I (1921), 143-148.

<sup>65</sup> G. Friederici, *Die vorkolumbischen Verbindungen der Südsee-Völker mit Amerika: Deutsches Schutzgebieten*, Mitt., Bd. 36, p. 29.

However, if we take into consideration the various dates that scholars have worked out for the discovery and settlement of some of the islands (based on genealogical data preserved by the islanders) we may draw a few more conclusions. Hawaii was presumably settled in the fifth century A.D. and New Zealand was discovered in the tenth century, but was not settled until the twelfth or fourteenth century. This would seem to imply that the Hawaiian 'crab-claw' spritsail evolved since the fifth century. Legend claims that New Zealand was settled by Tahitians from the Society Islands. As we have seen, the Society Islanders possessed an Oceanic spritsail of peculiar design. Thus, the Society Island sail has changed to its present form since the twelfth or fourteenth century.

\* \* \*

Further evidence for the Indonesian origin of the Oceanic lateen sail is to be found on the east coast of India on the large variety of catamarans

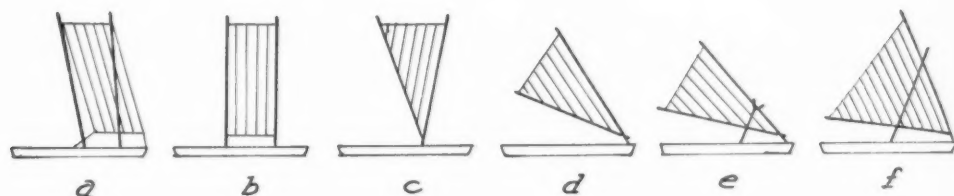


Fig. 13. The evolution of the Oceanic spritsail and the Oceanic lateen. *a*, proto-Oceanic spritsail with two loose sprits; *b*, rectangular sail laced to the two sprits; *c*, two sprits converged to form the typical Oceanic spritsail; *d*, spritsail canted aft as in the Ponape example; *e*, primitive lateen with a prop mast; *f*, fully developed Oceanic spritsail as seen in Micronesia. (Original.)

that are used along the coast. Many of these carry a sail that on first glance appears to be an Arab lateen, but on closer examination can be shown to be of Indonesian origin. Hornell<sup>66</sup> has published an excellent photograph of one from the southern part of the Coromandel coast (Negapatam), but evidently he did not realize the Indonesian influence in the sail, and passed it off as of apparent Arab origin (Fig. 14). The facts that point to the Indonesian origin of this particular sail are:

(1) There is a boom at the foot of the sail (Arab and western Indian sails never have a boom); this boom stops at the mast, the forward part being a stout foot-rope;

<sup>66</sup> J. Hornell, *Water Transport* (Cambridge: University Press, 1946), Plate XI.



(2) The mast is short and stubby and stepped far forward (Arab and Indian yards are usually hung from close to their centre);

(3) There is a mast-shore helping to support the mast laterally. The mast-shore is a characteristic of the voyaging canoes of Micronesia, and is also found in Fiji, the Trobriand Islands, the Bismarck Archipelago (Fig. 29), and certain Melanesian districts;<sup>67</sup>

(4) The head and the foot of the sail are of equal length. Since the leech is the same length as the head (or foot), the sail is almost equilateral (the head of Arab and Indian sails is always longer than the foot);

(5) The seams of the sail run parallel to the *head* of the sail, undoubtedly the more primitive way of running the seams in Indonesia and Oceania (the seams of Arab and Indian sails are always vertical);

(6) The sail is found on a catamaran which has marked similarities to many found in Indonesia and Oceania, and thus perhaps suggests an Indonesian origin of the shaped raft.

Similarities so peculiar and so numerous can not possibly be of independent origin. However, the sail has been influenced by the Arab lateen, for we find several details that are never found in Indonesia or Oceania:

(1) There is a short luff on the fore-edge of the sail identical to that found on the Arab lateen, but never found on the Oceanic lateen;

(2) The fore-ends of the two spars are not made fast to the forward end of the hull as they are in almost all Oceanic lateens.

We are confronted with a peculiar problem: this rig appears to be more closely related to Micronesia than any Indonesian area. The mast-shore is not known in Indonesia today, but is common to Micronesia; the equilateral sail shape (length of boom equal to luff) is found only in Micronesia, where it presumably originated. There are several possible explanations for this: (1) there was a Micronesian migration to India; (2) the Micronesian design originated in Indonesia. However, the existing facts do not indicate that either of these is probable. If the Micronesian design originated in Indonesia we would expect to find evidence of it today, since it is a better sail than the existing Indonesian lateens; we do not. If there were a Micronesian migration to India bringing the developed Micronesian lateen, this probably could not have been before the eleventh century (an arbitrary date based on the fact that the sail was developed well before the sixteenth century). On the other hand, the catamaran of India has undergone considerable evolution from the existing examples in Oceania, and if the introduction from Micronesia were as

<sup>67</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), p. 353.

late as the twelfth century, we would expect to find examples of this type of shaped raft in Micronesia; we do not.

By making two reasonable assumptions we can accept an Indonesian origin of this Indian catamaran with the Oceanic lateen sail:

(1) The mast-shore originated in Indonesia, but has not survived to the present day. The fact that it is found on a Melanesian craft (Fig. 29) carrying sails of the Java Boro Budur type might seem to substantiate this.

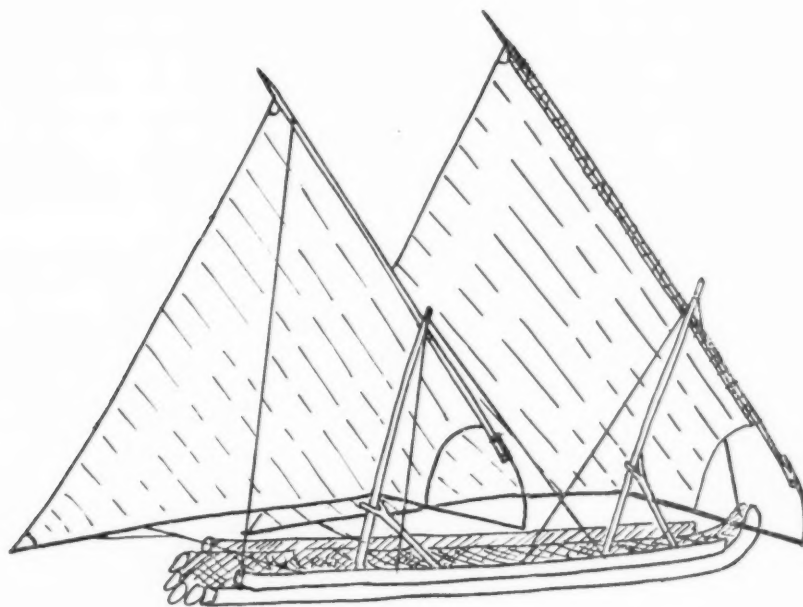


Fig. 14. Two Oceanic lateen sails on a seven-log fishing catamaran of India. There are two centre-boards and a powerful steering oar used with the craft. Note the mast-shores, direction of the seams, boom at the foot, and stubby masts. (*Original sketch by the author from a photograph by Hornell.*)

(2) The length of the leech of the sail has been increased from the influence of the Arab lateen. This is logical, since we have already seen that the short luff of the sail was undoubtedly copied from the Arab lateen.

In 1920 Hornell<sup>68</sup> showed paired catamarans in South India (Tuticorin) with a lateen sail common to both; the sail has a short luff (Fig. 15a). Later Hornell<sup>69</sup> showed a pair of the same type of catamarans from South India (Travancore) with a triangular sail common to both; the

<sup>68</sup> J. Hornell, 'Origins and Ethnological Significance of Indian Boat Designs,' *Memoirs of the Asiatic Society of Bengal*, VII (1920), 154.

<sup>69</sup> J. Hornell, 'Sailing Craft of Western India,' *Mariner's Mirror*, XXXII (1946), 216.

sail is perfectly triangular without any luff (Fig. 15b). This later sketch would appear to be a correction, since the locations are very close, and since the sketches are more or less identical in all other respects.<sup>70</sup> This triangular sail is the only purely triangular sail in the western Indian Ocean. The rig has been influenced by the Arab lateen in the sail cut (vertical seams), in the lack of a boom, and in the fact that the fore-end of the yard is not made fast; however, the triangular sail and the short, stubby mast show the original Indonesian ancestry.

## V

When the dugout was first developed both ends were the same—unornamented and undecorated. At some period in prehistory the head and the stern were made differently, and in certain areas the stern became very elaborate and ornate. Some of the examples that developed very prominent sterns were undoubtedly used originally as paddling canoes, either on rivers or at sea. If these high-sterned craft were for sailing, the rigs were undoubtedly designed to be sailed in one direction only.

There is no proof that the double outrigger canoe ever existed in Micronesia or Polynesia; the single outrigger is universally found. On the other hand, the double outrigger is almost universal in Indonesia. There seems little doubt that the single outrigger was originally developed from the double outrigger on some type of sailing craft, for only under sail does the single outrigger have marked advantage over the double. When sailing to windward in a double outrigger one float is always to leeward, and if the float is not kept from submerging, the craft will capsize as the float ploughs under the water. I like to visualize the single outrigger being conceived when the leeward float carried away in rough weather and the skipper realized that the craft sailed better without it. However, on the other tack the single outrigger that was left would then be to leeward, and the same problem would arise.

The single and the double outriggers seldom overlap in occurrence. One of the most interesting locales where they do is around Makassar in southern Celebes in Indonesia. Here long, slender dugouts with either single or double outriggers are rigged with massive rectangular balance lugs of the Boro Budur type and raced in classes. When the float of the single outriggers is on the weather side, the crew climb out on it, and the helmsman tries to sail so that it rises clean of the water; the greatest speed

<sup>70</sup> That this is probably a correction is shown by the fact that the 22 pages of the text of the 1946 *Mariner's Mirror* article have been reprinted almost word for word from the earlier article in the *Memoirs of the Asiatic Society of Bengal*. In both texts the wording of the paragraphs referring to the two illustrations is identical: both refer to a 'triangular and nearly equilateral sail.' It is easy to see how the original mistake was made: the Arab lateen type of sail was put on the craft.

is obtained in this manner. When the single float is to leeward and is being forced down into the water the crew stand on a bamboo running fore and aft a few feet off the weather side of the hull. Collins<sup>71</sup> shows several of these craft under sail in some of the finest photographs I have ever seen of native craft sailing.

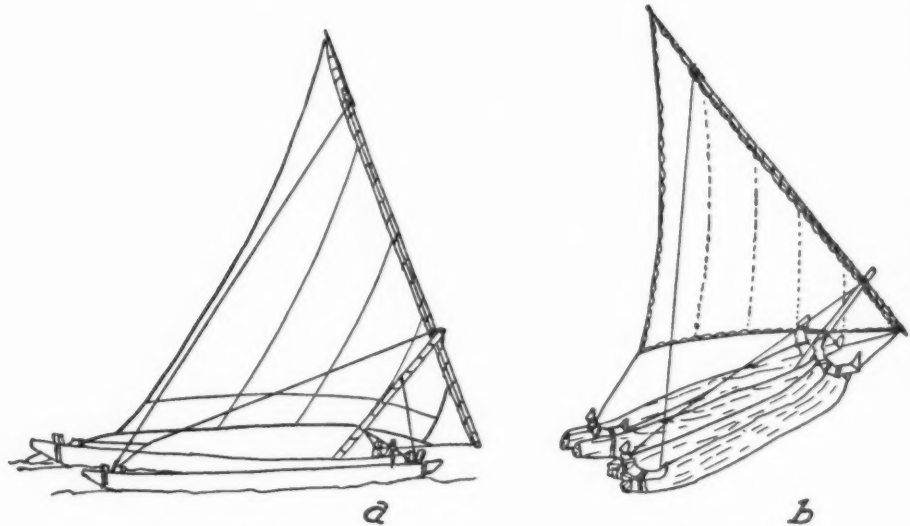


Fig. 15. Triangular lateen sail on paired catamaran of India. *a* shows a sketch Hornell published in 1920, *b* shows one he published in 1946. Presumably the latter is correct. The sail is an Oceanic lateen that has been influenced by the Arab lateen, and is the only triangular one in the western Indian Ocean. (After Hornell.)

Thus one way of sailing a single outrigger is to sail it always in the same direction and to move live ballast out to windward to keep the outrigger float from being forced into the water and capsizing the craft. This is also what many New Guineans, Samoans, and Society Islanders formerly did with their single outriggers. In the Samoan Islands' canoe there was a narrow balance spar projecting on the side opposite the outrigger.<sup>72</sup> In the Society Islands' single outriggers there was a small platform on which the crew could go out to balance the float.<sup>73</sup> It is interesting to note that Samoa and the Society Islands were the only places known in Polynesia

<sup>71</sup> G. E. P. Collins, *East Monsoon* (New York: Charles Scribner's Sons, 1937), plates facing pp. 250, 251, 262. I am indebted to Mr. A. C. Brown for calling this most interesting work to my attention.

<sup>72</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), Fig. 159, p. 231.

<sup>73</sup> *Ibid.*, pp. 115-118. See Fig. 7a of this article for an illustration.

where single outriggers were sailed in this manner, and the two groups had similar hulls with clipper bows and high sterns. Of course there close geographical location (neighbouring groups) does not make this surprising. However, different forms of the Oceanic spritsail were found on each.

Mr. A. C. Brown has informed me that the modern Society Islands' single outrigger canoe now fitted with an European spritsail is still sailed in the same manner as the old outriggers with Oceanic spritsails. He relates that they always are sailed in one direction on an *even keel* (no matter what the tack) by hiking out the human ballast on the forward traverse strut either toward the outrigger to keep it from rising out of the water when on the port tack (the outrigger is invariably on the port side), or out on the outboard projection to starboard, if on the starboard tack, to keep the float from being buried.

In some areas where single outriggers were sailed in one direction only, the booms and float were moved to the windward on each tack. The craft obviously had to be of limited size as it would be impractical on large craft. This technique was used in one place in India and in North Java.<sup>74</sup>

The cases where single outrigger canoes are sailed in one direction only are the exceptions to the rule: generally single outriggers were turned end for end on different tacks. This technique was perfected to its optimum in Micronesia with the Micronesian lateen. In Polynesia the Oceanic spritsail was the rig of the single outriggers and when changing tacks the sail was taken down and set up at the other end. There were apparently some two-masted single outriggers in Polynesia designed so that the spritsails stayed in the same position regardless of which way the canoe was going (Manihiki). In Micronesia the mast remained stepped in the same place and the sail and rigging were pivoted around it when the canoe was turned around, as we shall see later.

It would seem that this method of turning the canoe end for end was developed by the Polynesians or the Micronesians. At least it was used by them both before the perfection of the Micronesian lateen; otherwise the Polynesians could not have been ignorant of the Micronesian lateen. The only evidence to suggest that this technique might have been developed in Indonesia and carried to both areas is the fact that it is known and used in Ceylon too.<sup>75</sup>

In contrast to the single outrigger, the double canoe was ideally suited to being put about head-to-wind from one tack to another. Since the Oce-

<sup>74</sup> J. Hornell, 'Outrigger Canoes of Indonesia,' *Madras Fisheries Bulletin No. 12* (Madras: Government Press, 1921), p. 105.

<sup>75</sup> *Ibid.*



anic spritsail was a true fore-and-aft sail, double canoes with a spritsail properly set could be sailed like true fore-and-aft craft. The obvious place for setting up the sail would be on a thwart between the hulls. Precisely this procedure was followed for the double canoes of Hawaii, the Marquesas, and New Zealand.

However, in two areas in Polynesia the double sailing canoes were turned end for end upon tacking. In the case of the Tuamotu Archipelago there were two masts set up between the hulls, one at each end of the craft. On the later double canoes of Tuamotu an Oceanic lateen was set; with this sail the easiest way of tacking is to set the sail up at the other end of the craft. It is not known how the older Tuamotu double canoe with two spritsails was sailed, but the manner in which the sails were set on one leg of a sheer (Fig. 5b) might indicate that it was turned end for end on tacking.

The other area where a double canoe was turned end for end on tacking was in Manihiki. Here two canoes were set with the head of one opposite the stern of the other. There is apparently considerable confusion on how two sails were set, but a single sail was set in the forward end of the leeward hull. On changing tack the sail was set at the opposite end in the other hull. Thus it is obvious that here we have a modification of the single outrigger technique of turning the craft end for end.

If the double canoe evolved by the enlargement of the outrigger float to hull size, then we would expect it to be turned end for end and the sail set up over one hull rather than in the middle, as at Manihiki. However, generally it was not. Suggestions that the single outrigger evolved from the double canoe by decreasing the size of the float are too fanciful to discuss.

However, there are certain linguistic terms that do suggest a relation between the double canoe and single outrigger: in some places the extra hull of the double canoe and some of its parts bear the same names as the float of the outrigger. However, it seems that all this means is that the double canoe was introduced later, and some commonly used names had to be applied to the extra hull and parts. Similar events have been happening since the start of time. An excellent recent example of nautical flavour occurred in Arabia. The Arabs call the steering wheel of an automobile *sukkan*, which is Arabic for tiller or rudder. But certainly no one would even suggest that the automobile evolved from a boat. Probably when first adopted the Polynesians did turn the double canoe end for end on tacking, until they discovered the easier way.

In certain instances in Polynesia and Melanesia certain people bor-

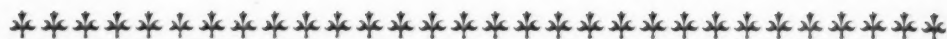
rowed either a sail or a hull design and did not fully understand the principles of operation. For instance, the Tongans apparently adopted the lateen from the Fijians but they set the mast up permanently on one end of a double canoe and attempted to sail it in one direction only. On one tack the lateen sail backed against the mast and the craft made hardly any way at all.<sup>76</sup> These people thus did not understand the operation of the lateen and attempted to sail it the way they had their old fore-and-aft spritsail.

We thus have the following steps in the evolution of the Oceanic lateen to its highest development in the Micronesian lateen, one of the strangest sailing rigs ever devised by man.

1. The craft was turned end for end and the mast and sail were set up on the other end;
2. Next, two masts were set up to facilitate the change of the rig from one end to the other;
3. The final development of the Oceanic lateen took place in Micronesia, where the mast was placed amidships so that it did not have to be shifted. The sail was simply moved around the mast when changing tack—somewhat in the manner of the Arab lateen when wearing downwind, although basically different: we will examine the details of this difference later.

<sup>76</sup> J. Hornell, *Canoes of Polynesia, Fiji, and Micronesia* (Honolulu: B. P. Bishop Museum, 1936), p. 272.

*To be continued*



## *Maritime Manuscripts in Baker Library*

BY ROBERT W. LOVETT

IT has been suggested that readers of *THE AMERICAN NEPTUNE* might be interested in learning of some of the maritime materials in the manuscript collections of Baker Library, of the Harvard Graduate School of Business Administration. A revised guide to these collections, edited by the author, has recently been issued.<sup>1</sup> A quick survey of this guide, indicating some of the more significant collections in this field, may be the best approach to the subject. But first a few words about the Manuscripts Division of Baker Library.

The collecting of business records at Harvard extends almost as far back as the College does, for the treasurers' own accounts, now preserved in the University archives, constitute a long and important series. But the collecting of the records of business firms, for the purposes of study and research, stems largely from the activities of the Harvard Commission on Western History just prior to World War I. And in 1916 Dean Edwin F. Gay and Professor Arthur H. Cole acquired the early records of the Slater textile enterprises for the Business School. With the completion of Baker Library in 1927, it was possible to set up a Division of Manuscripts in reasonably adequate quarters. The organization of the Business Historical Society two years earlier resulted in an agreement whereby manuscripts and books collected by its members were turned over to Baker Library for preservation. Charles H. Taylor, for many years president of the Society, was an especially generous donor, and his interests were largely directed towards the acquiring of maritime materials. Howard Corning, acting as agent for the Library at this time, was able to acquire numerous collections from firms and families up and down the coast.

Since fishing and shipping have always been important to the Boston and New England region, it is appropriate that the Manuscripts Divi-

<sup>1</sup> *List of Business Manuscripts in Baker Library*, compiled by Robert W. Lovett. (2nd ed., Boston, 1951), p. 213. Copies of the *List* may be obtained from Baker Library at a cost of \$1.50.

sion should contain extensive materials on these subjects. The collections range in size from a single log-book to the hundreds of volumes recording the China trade carried on by the Heard family of Ipswich. Since the *List* is arranged in accordance with the industry classification in use at Baker Library, maritime materials are widely scattered. However, these may be brought together by means of the index, and the listing in chronological sequence of collections in such areas as whaling, fishing, coastwise shipping, and foreign marketing has certain advantages. Of further interest to students of maritime history is an alphabetical listing of ships for which there is material in the collections and a chronological listing of log-books. We may now take up our survey of the *List*, and through it, of the collections themselves.

The first section in the new *List* of interest to maritime historians is that devoted to the Marine Industries, Fishing and Whaling. The earliest entry in the Fishing section is that of a small account book (1719-1720), kept by an unidentified supplier of fishing vessels in Portsmouth, New Hampshire. The man took an interest in the proceeds of some of the trips; and the donor, not unexpectedly, was Charles H. Taylor. The largest collection described in this section relates to the activities of Thomas E. Oliver, of Newcastle, New Hampshire. It consists of twenty-four volumes and four boxes, and covers the period from 1818 to 1865.<sup>2</sup> Additional Oliver material has been placed under Coastwise Shipping (two volumes, ten boxes, 1809-1856), and General Storekeeping (six volumes, 1831-1850).<sup>3</sup> The Whaling section is smaller than it would normally be, since log-books are recorded in another section of the *List*. The earliest item (1774-1816) is a book of receipts for shares in whaling voyages, belonging to John Alden, agent, of New Bedford; the latest (1899-1904) contains accounts of the bark *President*. Other interesting items include a book of handpainted whaling signals (undated), a descriptive catalogue of New Bedford whaling ships (1783-1906), compiled by Joseph Dias in the years 1880 to 1906, and a list of whaling ships sailing from New Bedford (1835-1852), compiled by S.W.R. Account books of two ships, of which Edward R. Ashley was master, contain diary entries by his wife.

Records pertaining to the building of ships are considered in subsections of the heading, Manufacturing. There are fourteen account books

<sup>2</sup> In the following descriptions a box is the equivalent of a portable letter transfer file, a case equals about a half of a file drawer, and a crate stands for any container larger than this. Dates in parentheses indicate the inclusive dates of the material in a given collection.

<sup>3</sup> Under present procedures in the Manuscripts Division these would be kept together, probably under Fishing, since this is the area within which the bulk of the material falls.

(1822-1868) of Boyd & Hanson, of Portland, Maine; a ledger (1837-1845) belonging to Pyam Cushing, of Medford, Massachusetts; and five volumes and fourteen boxes of records (1871-1916) of Sawyer Brothers, of Millbridge, Maine. Still packed in crates are the papers (1912-1933) of Crowell & Thurlow Steamship Company, of Boston. Material pertaining to the outfitting of ships is scattered; occasionally some appears in the records of such Maine coast storekeeping families as the Witherles, of Castine (1806-1890), or the Sargents, of Sargentville (1843-1920). Accounts of such ship chandlers as John Swain, of Nantucket (1789-1826), Ebenezer Thompson, of Portsmouth (1815-1821), and an unidentified Newburyport outfitter (1809-1815) are to be found in the section, Wholesale Marketing.

Affairs pertaining to docks and wharves are considered in two places in the *List*, under Engineering Construction, and under Water Transportation Services. The more significant material is in the latter section; it includes nine volumes and one box relating to Boston Long Wharf (1792-1807), two boxes for the East Boston Dry Dock (1824-1893), and forty-five volumes and three boxes for the Erie Basin Dock Company (1864-1880). The largest collection on this subject is that of Central Wharf, Boston; the 163 volumes include records of Thomas B. Wales & Company (1811-1860); Stanton & Nichols (1829-1844); and India Wharf (1833-1880). There are manifests of cargoes in and out, storage accounts, dockage charges, and freight; many of the volumes, however, have been damaged by fire and water. Somewhat allied are two small subsections of Navigation Protection, Lighthouses and Pilotage. Each contains two single-volume entries; from them one can learn something of Libby Island lighthouse, Maine (1822-1823), or of Francis Norton's piloting activities in Edgartown, Massachusetts (1772-1807).

As might be expected from its title, the section, Water Transportation Services, concerns maritime history most closely. It is divided into such subsections as Canals, Coastwise Shipping, and Ocean Shipping. The subsection, Coastwise Shipping, starts off with letters of Boston merchants (1732-1790), mounted in four volumes and deposited by the Boston Public Library. The letter writers include Henry Lloyd, William Powell, David Lopez, Jr., Moses M. Hays, and John Powell, and the letters are for the most part addressed to Aaron Lopez and Christopher Champlin, of Newport. Coastwise steamboat companies are represented by twenty-five volumes of the Fall River to Providence line (1829-1870) and four volumes of the New Bedford, Vineyard & Nantucket Steamboat Company (1854-1885). The Reverend Wilton E. Cross, of Taunton,



collected material relating to the schooners *Emma F. Angell*, *Bertha Deane*, *Marguerite*, and *C. A. White* (1881-1915); this is now in the Library.

The subsection, Ocean Shipping, describes extensive collections, representing many well-known Boston names. It begins with ten boxes relating to the activities of the Bourn family, and those of Nathaniel Holmes and Samuel Sturgis (1727-1803). A large collection, which has been recently listed, is that of the Wendell family, of Portsmouth (1722-1865). Among the 101 volumes, seven boxes, and twenty-three cases are papers of Jacob Wendell, A. & J. Wendell, Randall & Wendell, Portsmouth Whaling Company, Eagle Insurance Company, and log-books of the ships *Endeavour*, *Nancy*, *Hero*, *Thomas Gordon*, *Isaac Newton*, and others. There are also student exercises in navigation kept by John Orn and Jacob Wendell in the early years of the nineteenth century. The Emersons (Ephraim and James) of Salem are represented by a log-book, four account books, and miscellaneous letters and invoices (1816-1835). Another large collection is that of Thatcher Magoun, of Medford and Boston (1816-1885), containing thirty-one volumes and thirty-three boxes. The Lord family is represented by several different collections: Daniel W. Lord, of Kennebunkport (seven volumes, eight boxes, 1821-1873); Nathan Lord, of Portsmouth (one box, 1788-1811); and George C. Lord & Company, of Boston (three boxes, 1854-1894). The Hunnewells, who traded chiefly with Hawaii, have turned over to the Library some eighty-three bundles and seventeen cases of papers (1823-1869). The state of Maine is further represented by the papers of James P. White, of Belfast (twelve volumes, five cases, 1836-1879), and Charles V. Minott, of Bath (twelve boxes, 1870-1892). The latest collection in point of time in this section is that of Peter Wright & Sons, steamship agents, of Philadelphia (1877-1915). The sixty-eight volumes and two boxes, collected by Frank L. Neall, contain records of charter parties and statistics on imports and exports of coal, iron, grain, and sugar.

Log-books, including those preserved in Houghton Library (the rare book department of the University Library), are listed in chronological order at the end of the section, Ocean Shipping. Some 113 ships are listed here, from *Augusta* (1781-1800) to *Adelia Chace* (1893-1896). And this is not all, for some of the large collections, such as the Wendell, contain log-books which have not yet been separately recorded. Many of the log-books are of the cut-and-dried variety, but a few contain more interesting observations. An occasional book is found to contain sketches of ships and whales; in later years the latter tend to be rubber-stamped.

It has not always been easy to determine which collections should go

under Ocean Shipping and which under Foreign Marketing; thus many entries of interest to students of maritime history will be found in the latter section. Here again are many collections of family papers. Among the forty-three volumes and seventeen boxes of the Tudor papers (1752-1902) may be found much information concerning their exportation of ice to far parts of the world. The Heard collection (1754-1898) is especially extensive, numbering some 770 volumes, 268 boxes, thirty-nine cases, and twenty-five crates. The correspondence of the Heard brothers, nephews of Augustine, of Ipswich, illumines many aspects of the China trade during the mid-nineteenth century. Another family collection bearing on the China trade, and one but recently received, is that of the Forbes family of Milton and Boston. The fifty volumes, five boxes, and five cases (1803-1920) contain material on John Murray Forbes, United States representative at Hamburg and Copenhagen, Thomas T. Forbes, Robert Bennet Forbes, John Murray Forbes, the younger, and Paul Siemen Forbes. The Forbeses were closely connected with various houses engaged in the China trade, Perkins & Company, Russell & Company, and the Heards, and there are papers relating to Houqua, the Chinese merchant, in the collection. Two cases of material relate to the claims of the owners of the ship *Macedonian* against Chile, from 1819 to 1860 and later; these contain original documents, memorials, and exhibits.

Other well-known Boston merchants, represented by smaller amounts of material, include John Rowe (1759-1762), J. & J. Amory (1761-1797), Henry Lloyd (1765-1767), John Coffin Jones (1768-1829), N. Barrell & Company (1770-1803), John Codman (1783-1785), Israel Thorndike (1799-1810), John Bryant (1801-1812), and Jeffrey Richardson (1812-1832). Salem merchants for whom there are papers in the collection include William and Henry Gray (1801-1855) and David A. Neal (1818-1877). Information on the California trade (as well as foreign trade in general) may be found in such collections as the Comstock Brothers (Boston and New York, 1833-1876), William Appleton & Company (Boston, 1840-1889), and (for the California side) the papers of Albert Dibblee, commission merchant (San Francisco, 1849-1895). Later Boston merchants are not forgotten either, as is shown by the presence of the papers of Dane, Dana & Company (1852-1855), James Maguire & Company (1852-1870), John C. Phillips (1859-1885), and B. S. Pray & Company (1868-1922).

Even such a section as Insurance may contain, in the subsection, Marine Insurance, much of interest to the student of maritime history. There is no large collection here, but some ten small ones, ranging in

time from 1781 to 1909, and in place from Maine to Pennsylvania. In the section, Governmental Services, are grouped a few collections of customs records. These include five boxes for the Marblehead custom-house (1789-1870), two volumes for the Philadelphia custom-house (1796-1802), two boxes of Kennebunkport records (1804-1830 and 1853-1888), and a letter-book containing letters addressed to Levi Lincoln, of the Boston custom-house (1843). Even the Navy has been represented, with a journal kept by a midshipman aboard the U. S. Sloop of War *Vincennes* (1849-1851). Foreign manuscripts have been grouped together at the end of the *List*; there are a few of maritime interest. There is in Houghton Library a record book for the English Corporation of Shipwrights (1643-1645), and in Baker Library material on customs collection in England (1650-1659). A small item but an interesting one is a manuscript description of a passage boat, presented to Charles Harvey, by Samuel Leach, London, 1806.

Many subsidiary collections have grown up about the manuscripts. Thus the Division houses and services a collection of photographs and prints (many of which relate to shipping), a number of clipper-ship cards, and extensive files of ephemeral material.<sup>4</sup> Here are to be found examples of charter parties, bills of lading, and indentures of seamen, and numerous groupings of scattered manuscripts, too small in extent to warrant shelving separately. The classification brings those relating to the various aspects of shipping together, in chronological order. Although little attempt has been made to collect museum items, visitors will find the model of a whaling vessel, the gift of Charles H. Taylor. Baker Library itself contains a large collection of economic and business books; other special departments include corporation records, where files of financial information about companies are kept, and the Kress Room, where earlier and rarer items are housed.

For large collections of records, such as the Heard, folders have been prepared, containing a detailed listing, by series, of the content of the collection. These may be consulted at the Library by those desiring further information about a given collection. Some materials have been described in issues of the *Bulletin* of the Business Historical Society; a file of this periodical is at hand. Facilities are available at Widener Library for the making of photostats and microfilms. The Manuscripts Division is open from nine to five, Mondays through Fridays, and on Saturday mornings during the academic year by arrangement. Any student or

<sup>4</sup> A few of these cards have been pictured in the brochures issued by the State Street Trust Company, of Boston.

person with serious interest is welcome; prior notification is desirable, since some of the materials are still stored in crates.

The extent of maritime materials in the Manuscripts Division of Baker Library can only be indicated in this short account; much has been omitted. Although the tempo of collecting has slowed down, partly because of limitations of space, the Library still welcomes significant series of records. It also welcomes users of the material, for through use of the collections more information as to their content becomes available, and the Library's interest in this field becomes better known.

*Robert W. Lovett is Head of the Manuscripts Division, Baker Library. He has worked in the Harvard Library system since his graduation from that college in 1935. Aside from his library work he has a deep interest in local history, particularly that of Beverly, his home town. He is the author of numerous articles on local and library history which have appeared in various learned journals.*

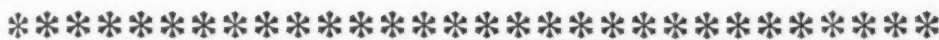
\*\*

A

sage  
cult  
chan  
a few  
or ta  
ing,  
cou  
men

In  
nau  
year  
ura  
cust  
lim  
wee  
awa  
tion

V  
it w  
wh  
ing  
jot  
ser  
the  
the  
con



## *Tales of Banks Fishermen*

BY HORACE P. BECK

AS the days roll by, the wind ship becomes more and more of a memory. Fewer and fewer are the men alive who sailed aboard them, and, although we have plans of the vessels and logs of their passages, we become increasingly aware of how little we know about the cultural life aboard sailing vessels. To be sure, we have some of the chanties and some of the forecastle songs, a few journals of passages and a few story cycles like those attributed to Stormalong of legendary fame or tales of Bully Hayes and other 'hell-roaring buckoes,' but we are lacking, in a very large measure, individual anecdotes of those days that could throw much light on the lives and feelings and thoughts of the men who earned their living by driving ships in the wastes of the sea.

In days gone by, the seafaring man had what might be considered a nautical culture. When voyages could last as long as three or even seven years with periods of six or more months at sea at a time, it was only natural that such a culture should develop, complete with its own language, customs, beliefs, and amusements. Today that culture has passed into limbo, for with the longest voyage hardly a year and periods of three weeks at sea considered long and news of the outside world only as far away as the radio shack, life aboard ship is little more than a continuation of life ashore, albeit the vessel still rolls with the sea.

While ranging the New England coast during the last two summers, it was my good fortune to meet a few of the old timers who are still left who remember the days of the 'harness cask' and the long passage. During the course of conversation they would tell a few stories and I would jot them down. It occurred to me that it might be worth while to preserve them that they might help, in some small measure, to put together the torn and fading picture of a day increasingly long dead. By and large these tales are an unrelated group of anecdotes from deep-sea fishermen concerning superstition, navigation, and humor which, although frag-



mentary, make, as they did years ago, interesting yarns for the watch below.

Seymour Harnish, age sixty-five, is a native of St. Margaret Bay, Nova Scotia. He is one of the last of the itinerant fishermen who made their living handlining. In the summer he may be found, all alone, in his 35-foot boat, *Caroline*, fishing on Georges. Later he moves south to Block Island and fishes on Coxe's, migrating finally to Chinkateague, Virginia, where he fishes until spring brings him north again. He told the following stories of miraculous escapes and occurrences.

#### *The Spectre On Georges*

I was out on Georges one night years ago in the early winter ground fishin'. It come dark an' I set me ridin' light an' went below an' had a bait o' grub an' decided to turn in. Well, before I turned in I took a look outside an' it was awful black, but the glass was steady an' I thought nothin' of it an' turned in. They was about fifteen vessels all larger than the little *Caroline* around me. Well sir, about two o'clock in the mornin' I woke up an' went outside to have a look around. The glass was steady but it was snowin' a little an' there was a little swell runnin'. I was just about to go below when I looks forrard an' sees a feller—all oiled up he was—come in over the bow, his oilskins all wet an' shinin'. He come aft to where I was standin'. He didn't say nothin', but he shook me by the hand an' walks aft an' disappears over the stern. Well sir, I didn't wait. I got me anchor an' let her go for Gloucester. About two hours out it come on from the no'theast an' didn't it blow. We just did make Gloucester, an' four of them other boats was lost that night on Georges. That's how I was preserved that time on Georges.

#### *Twenty-four Men On Georges*

Years ago there was a fishin' schooner out o' Gloucester called the *Northern Light*. She was a fast schooner an' a lucky one an' she carried a big crew. One time she went fishin' on the Banks an' stayed there 'till she had a terrible trip o' fish an' then they swung her off for home. Well sir, they hadn't hardly swung her off when the weather come nasty an' it held that way—no'theast gales, snow an' ice. The closer they come to Gloucester, the worse it got. The skipper didn't know where he was most of the time an' the crew was worn out. Finally, just 'bout dark they fetched Georges. There was breakers all around an' a gale drivin' them an' the schooner loaded deep. It looked like the *Northern Light* had made her last passage. Just about that time they saw a whole crew o' men—twenty-four of them—come piling in over the side all in oilskins. They drove the crew down into the fo'castle an' the skipper with 'em an' locked them in. The crew was scared to death. They didn't hear nothin' of the new crew all that night, but they was afraid to come out. When it come light next day one of them tried the hatch an' when he found it was unlocked they all went out an' found it was a fine day with a light breeze an' Thatcher's just ahead. The schooner had all her canvas spread instead of the storm canvas she had been carrying the night before an' not a soul on deck nor a ship in sight. Years ago there was plenty of people in Gloucester who could have told you the story of the *Northern Light*.

*The Dutchman*

Years ago there used to be a big trade with the West Indies. That's all gone now, what with prices what they are and all, but one time there used to be a lot of ships in that trade. My father used to tell the story of the Dutchman.

This Dutchman had a big brig out of Lunenburg in the West Indy trade. In those days they used to keep a slate lashed to the carlines in the skipper's cabin. Every day the skipper would write his noon position on the slate and then put the course on it.

Now the brig had been clear o' the islands for about two weeks. The wind had been fair, but light, so she wasn't too far along. Well, this day the old Dutchman goes to take his sights and he notices that the course is no'theast. He takes his sight and goes to work it out on the chart and he sees the course is on the slate, nor'west. He calls up to the helmsman, 'What you Steering?' 'No'theast.' The skipper scratches out nor'west and writes no'theast and comes on deck. After a little he goes below to get something and looks at the slate. Slate reads nor'west. Skipper rubs it out an' writes no'theast an' goes on deck. Then he goes below again an' looks at the slate. The slate reads nor'west. 'What are you steering?' 'No'theast captain.' 'Where's the wind?' 'Sou'west by west.' 'Call all hands. Come to nor'west and double the lookout.' 'Aye aye.'

Well, they come to nor'west an' the breeze commenced to come on fresh an' the brig started to travel. The old man begins to drive her an' after about two hours the lookout sings out he sees something. There is fourteen men in a dory an' they are about used up. The brig takes 'em aboard an' they come back to course an' head back for Lunenburg. Skipper goes below an' looks at the course on the slate. The slate reads no'theast.

Mr. Thompson had been fishing out of Gloucester and Lunenburg for over forty years in schooners and beam trawlers before he retired from the sea to earn his living as keeper of the fishing vessels while they were idle in the port of Gloucester. Now, there is nothing that so delights the seaman as does relating the mistakes of various skippers under whom they have sailed, especially when the narrator can lay claim to some part in the saving of the ship. The following anecdote, narrated by Mr. Thompson one night on a wharf in Gloucester two years ago, is typical of such stories.

*Where Are We?*

One time I shipped out of Gloucester with a skipper on a big dragger. The captain was a good feller, but he wasn't no good as a navigator. I knowed he wasn't, but times was tough and I needed a job.

Anyway, we come out of Gloucester and when we was past Thatcher's we swung her off for Monhegan Island. It was thick-o'-fog but we let her go anyway; the skipper didn't care. When it come my trick at the wheel the skipper says to me, 'Sing out when you get the whistle off Monhegan.' We kept her goin' but we didn't see nothing and we didn't hear nothing. By and by I thinks we are past Monhegan and just then the lookout hollers that he hears a bell buoy. 'Where he at?' 'Port bow.'

'Call the skipper.' The skipper comes up and I tell him what we hear. 'Ain't Monhegan.' 'What we better do?' I tells him, 'Anchor is what we better do.' And so we anchor.

Next morning it is still thick-o'-fog but by and by we hear an engine. Then we see a lobster boat coming. That lobsterman just looks and looks at us. Skipper shouts, 'Where we at?' 'Matinicus.' Eighteen miles off course. 'How we get out of here?' 'How much you draw?' Skipper tells him. 'You don't get out. Last night was full-moon tide. You can't get out 'till next full-moon tide.' So we stayed there 'till the next full-moon tide. The skipper was a nice feller, but he wasn't no good as a navigator.

Several years ago, while in Chester, Nova Scotia, I was discussing the strange appearance of the well-known revolutionary fire ship *Teaser* that is supposed to give a pyrotechnical display in Chester harbor before heavy gales and the conversation shifted to navigation. Mr. Perry Stevens of that town gave the following account of the accuracy of celestial navigation among Lunenburg fishermen.

*Keep A Sharp Lookout*

There was a schooner out of Lunenburg bound in with a trip of fish. The weather had been thick for a couple of days and when it cleared on the third day the skipper decided to take a sight to determine his position. The old man fetched his sextant and after working with it for a few minutes he went below and stayed there for about an hour. When he came up he looked rather worried and he sings out to the crew, 'Keep a sharp lookout byes. Accordin' to my figgers we're a hundred and twenty miles into the woods already.'

Last summer, while collecting folk-songs on Matinicus Island, I met Harry Myers, master mariner, aged seventy-five, who proved to be not only a good singer but a story-teller as well. The following three anecdotes told by him are all from the days of sail and all three are tales of Irishmen. Because they fall into the humorous Paddy tale and because they are slightly different from the usual run-of-the-mill sea stories they are doubly worth preserving.

*Pat Ohrin*

Pat Ohrin was a skipper out of Gloucester. He was a wonderful skipper and a lucky fisherman. He always had plenty of hands who wanted to ship with him but Pat could neither read nor write and he never had a chart. He always fished on Georges.

Pat was such a good fisherman that one day his owners decided to give him a testimonial dinner. After the dinner there was some speech-making and then they presented Pat with the finest chart that money could buy. Pat thanked them and went back to his vessel. He rolled the chart up and stuck it up between the carlines in his cabin. There the chart stayed year after year and in the summer the flies

(there were always a good many flies aboard the old schooners years ago) would make their nests there.

One day Pat was on Georges and it came thick-o'-fog and he couldn't seem to find out where he was. Finally, one of the crew asked him about his chart. Pat went below and pulled it down. It was covered with flyspecks. 'Moi, moi,' says Pat, 'I niver knew there was so many rocks on Georges.'

### *A Change*

Years ago there was a small brig. The captain had shipped a young Irish boy just over from the old country. The boy had never been to sea before, but the skipper was short-handed so he decided to give him a trick at the wheel. He showed the boy how to steer and what point of the compass to keep against the lubber line and turned in. Before he left the deck he said, 'Now remember Pat, if there is any change, any change at all, you come call me quick.'

The boy had been steering about an hour when it began to get black. First thing you know the brig was hit with a hell of a squall. Pat hung onto the wheel. All the canvas went by the board. Pat hung to the wheel. By and by a big sea came in over the quarter and took the binnacle to hell. Pat went below and called the old man. 'Captain, sor,' says he. 'The linens is all blowed off the cross sticks an' the cross sticks is all mixed up with the up and down sticks and the steerin' box has gone to hell overboard. Captain, sor, I think there's been a change an' you'd better come up.'

### *The Drug Store*

In the old days the drug stores all had red and green lights in front of them. Now a skipper of a coaster had shipped a young Irish boy as cabin-boy. The boy didn't know much, but the coaster was caught in a blow and driven off. When it cleared up everybody was tired out and the coaster was about two hundred miles off-shore. The old man decided to let the boy steer while the rest of the crew got some sleep. He told the boy where they were and showed him the course and turned in.

After a while the boy looks up and sees the red and green lights of a vessel dead ahead. He lets out a laugh and sings out to the skipper, 'You're a hell of a navigator. You'd better come up quick. There's a drug store ahead, and in about five minutes we'll be in the front door if you don't stop her.'

Some of the above tales may be easily rationalized. For example, the idea of the extra hand is very familiar at sea. Harnish had undoubtedly heard of this figure. He didn't like the weather and had a sailor's uneasiness about things to come, even though the glass remained steady. When he turned in, it was to an uneasy sleep in which he dreamed. He dreamed that he had gone on deck and seen a spectre come in over the bow. The dream was so vivid that it turned the old man out, and when he came fully awake, he found himself standing on deck. Time and subsequent events all led him to the conviction that a spectre actually had risen from the sea to warn him.

The crew who rose to save *Northern Light* presents a far more difficult

problem. In all probability the crew, exhausted, had given up and crawled into the forecabin. Unmanned, the schooner had crossed the banks, and in the morning was jogging off Thatcher's. Perhaps someone in the crew had a nightmare that night. In the face of their miraculous escape the others were willing to believe him. This idea gains credulity when we remember that seamen are notoriously superstitious.

In the case of the Dutchman we have little to go on, save that perhaps the skipper had a hunch which was so strong that he played it. Either that or the story never happened at all.

Of the humorous stories little need be said. No seaman could sleep through a squall hard enough to carry away yards, canvas, and the binnacle. No one could mistake fly specks for printed matter. No one could mistake running lights for the lights on a drugstore. Although obviously made from whole cloth, these tales represent part of a vanishing group of anecdotes that sailors loved to tell about their skipper and the stupidest hand aboard.

Mr. Thompson's tale needs a little more discussion because it shows how many of these stories are developed. In the first place, considerable effort was spent in trying to verify this story. Apparently the tale is entirely apocryphal, for no one on the island of Matinicus remembers such an event during the past fifty years—the memory span of the oldest inhabitant. Yet this story would be entirely possible to believe, especially if the listener were a seaman acquainted with the coast. It is quite possible to miss a whistle in the fog. Were one heading for Monhegan from Thatcher's and held too far to the eastward, he would strike Matinicus because it lies almost in line with Monhegan. Further, there is a bell off the west shore of Matinicus Island. Were one to leave the bell to port one would become tangled in some of the worst reefs and ledges on the coast. Finally, by the narrator making himself something of a hero, the tale is given a final touch of credulousness.

When all is said and done, it does not seem to me important whether or not these tales be rationalized or explained. Because they are still told gives evidence of their one-time popularity, and they stand as remnants of what is fast becoming a forgotten era. As such, if for no other reason, they have value.

*Horace P. Beck, who graduated and received his Ph.D. from the University of Pennsylvania, is a native of Newport, Rhode Island, and teaches English at Temple University. He is deeply interested in folklore and arts and crafts of the Northeast and has sailed the coast between Nova Scotia and Chesapeake Bay since 1925.*





## *'Thar She Blows'*

A VERSION BY LLEWELLYN HOWLAND

---

### Foreword

THE yarn, 'Thar She Blows,' like some rare yet widely distributed botanical specimen, has been treasured and propagated through word of mouth for a hundred years by a little company of storytellers and connoisseurs of traditional sea lore, largely resident in the vicinity of New Bedford and elsewhere occasionally to be met with in those innumerable ports and roadsteads 'used' by New England whalemén during the hey-day of that ancient and sometimes fabulously lucrative business known as 'The Whale Fishery.'

Since a well-remembered evening in the 'gun room' in the Skipper's old house on Clark's Point, when, sixty-five years ago, I first heard this yarn recited by that master of the art of recounting his own and others' experiences at sea, I have at less and less frequent intervals seen references to it in publications from all parts of the English-speaking world and have occasionally come across feeble attempts to present it in print as a whole. I have also heard it told during this long span of time by all sorts and conditions of men but by none as that friend of my youth used to tell it with such compelling gusto and a seasoning of salty phrases peculiar to the soil of its birthplace—New Bedford—a then port and town as unlike the present scene as the square-rigged vessels of that day were unlike the modern Atlantic liners.

A few of those who are still alive and who remember recitals of 'Thar She Blows' by its most famous bard have asked me as a native of New Bedford to attempt to recapture, at least the essence, if not the full fragrance, of this yarn as he used to tell it, to the end that when, if and as published it might be more permanently enshrined than in the dimming memories of the two or three old codgers to whom it is now precariously entrusted. After some months devoted to correspondence and research, the dredging and sorting of recollections, and finally in the polishing process, the rejection of all extraneous and unauthentic embellishments,

I now offer the following version—not as that splendour of perfection the Skipper's talent presented but rather the unaspiring though solid foundation on which he based *his* classic rendering of 'Thar She Blows.'

Eight and fahrtly months at sea and never a smell of aill! 'Twas 1851 and I was fust mate aboard the bark *Elancthon Jenney* aout o' New Bedford. We was cruisin' the Saya da Malha grounds when the man on the lookout he hails from aloft:

'Thar she blo-o-o-ws!'

An' I goes aft an' says I:

'Cap'n Simmons!' says I, '*thar she blows*—shall I lower?'

Cap'n Simmons give a look aout to wind'ard, whare there was a scad o' scud, an' says he:

'Mister Sims'—says he—'it's ablwin' too smart peart—*an' I* don't see fitten fer to lower.'

An' I goes for'ard; an' the man on the lookout he hails from aloft:

'Thar she blows *and spaouts!*'

An' I goes aft an' says I:

'Thar she blows *and spaouts*, Cap'n Simmons,' says I—'shall I lower?'

'Mister Sims,' says he: 'she may *blow and she may spaout*,' says he, 'but as I says to you onct afore, its ablwin' too smart peart an' *I* don't see fitten fer to lower.'

An' I goes for'ard; an' the lookout he hails from aloft:

'Thar she blows—an' spaouts—*an' breaches!*'

An' I goes aft an' I says:

'Cap'n Simmons'—says I—'thar she blows—an' spaouts—*an' breaches*—shall I lower?'

'Mister Sims'—says he—'as I says to you twict afore'—says he—'it's a-blwin' too smart peart—*an' I* don't see fitten fer to lower.'

An' I goes for'ard; an' the lookout he hails from aloft:

'Thar she blows—an' spaouts—an' breaches—*an' belches!*'

An' I goes aft an' I says:

'Cap'n Simmons'—says I—'thar she blows—an' spaouts—an' breaches—*an' belches*—shall I lower?'

'Mister Sims'—says he—'she may blow—an' she may spaout—an' she may breach—an' she may *belch*'—says he—'but as I says to you four times afore it's ablwin' too smart peart—*an' I* don't see fitten fer t'lower.'

An' I goes for'ard; an' the lookout he hails from aloft:

'Thar she blows—an' spaouts—an' breaches—an' belches—an' *sparm* at that!'

An' I goes aft an' I says:

'Cap'n Simmons'—says I—'thar she blows—an' spaouts—an' breaches—*an' belches—an' sparm at that!*' says I—'shall I lower?'

'Mister Sims'—says he—'as I says to you seventeen times afore,' says he, 'it's ablowin' too smart peart an' I don't see fitten fer to lower—'*but*'—says he—'ef *you* see fitten fer t'lower, you c'n lower, Mister Sims, an' the Lord cut yer goddam'd comb fer yer'—says he!

An' I goes for'ard—an' I lowered—an' as the boat hits the water I sings out: 'le'go them falls—shove off—an' give way to bust yer guts.'

An' that crew o' mine they loosed them falls—an' they shoved off—an' they give way to bust their guts. An' we chased that critter the best part o' the forenoon watch an' hove alongside o' her abaout eight bells.

An' I says, 'boys'—says I—'I'm the best man for a long dart as ever sailed aout o' New Bedford—shall I *sock it to her?*' says I.

'Sock it to her,' says they.

An' I socked it to her—clean up t' the hitches—an' it tuk! An' when we cum alon'side the ship that night thur stood Cap'n Simmons in the waist—the tears in his eyes as big as hoss buns, an' says he:

'Mister Sims,' says he: 'you're the best fust mate as ever I seen—an' yonder in the hangin' locker over the head o' my swing bed in my berth'—says he—'you'll find your fill o' prime Havana *Seegars*, an assortment o' hard liquors, an' a quart case bottle o' New Bedford triple distilled rum—them is all yourn,' says he, 'an' aplenty more like 'em fer the rest o' the viyage,' says he.

'Cap'n Simmons'—says I—'I am a man what sees *his* duty an' *does it*'—says I—'an' you can take them prime Havana *Seegars*, them assaulted liquors, an' thet bottle o' New Bediford triple distilled rum, an' a gub o' oakum dipped in terps—an shove 'em where *they'll bite*'—says I—'for all's I want on this viage'—I says—'is *seevility*—an' that o' the goddammedest, commonest sort'—says I.

An' I goes for'ard.

*Llewellyn Howland was born in New Bedford, October 1877. He received a liberal education at Milton and around the wharves and harbor of New Bedford and Fairhaven and the shops, sail lofts, stables, counting houses, gardens and mansions, farms and boats which were at that time adjuncts of the whale fishery—a dying but not quite dead industry. He went to Harvard College in the class of 1900 and thence into business in Boston where again his experiences were varied as he engaged in almost every gainful pursuit known to man—except that of selling women's underclothes. He retired from active business in 1940 to live in the village of Padanaram within sight of the old home of his Howland forebears—'Round Hills' farm which commands the 'Western Passage' into New Bedford Harbor and Buzzards Bay.*

\*\*\*\*\*

# Documents

EBEN CALDWELL TO HIS COUSIN,  
WILLIAM TITCOMB

(An account of the foundering of the ship *Dorchester*, December 1844.)

Friend W.—Knowing that you take a deep interest in everything relating to commerce especially everything concerning myself or my voyages and considering that only a meagre account of my late shipwreck and our narrow escape from a watery grave had been published, I take a leisure hour to give you some of the particulars of the disaster, our situation while on the wreck and the manner of our rescue.

The *Dorchester* left Liverpool on the 28th of November, about noon. We had good weather in the channel and cleared the land in about sixty hours from port. The winds prevailed westerly and south-westerly after that, keeping us to the North, but allowing us to make pretty good progress to the westward.

On Wednesday December 11, I found myself by observation at noon, to be 50 degrees north and longitude 28 degrees 30' west. (I write from notes made after we were taken from the wreck, having lost log-book, journal and all other records.) The wind was then south-west, with fresh breezes, and the ship was making a good course and good progress towards home, and towards the loved ones gathered around the family table and family altar. We were used to blue water and rough seas and we thought not of danger.

The barometer was standing at noon at 29.50. It was not again observed until a little after 4 P.M., when it had fallen to 28.75 or three fourths of an inch in about four hours. As this was an unusually rapid fall, all hands were immediately called to take in sail and pre-

pare for a contest with the mighty elements; a storm was evidently at hand. Our topsails were close reefed, courses, jib, spanker, etc., were well furled, for the barometer told us plainly that the gale would be a heavy one. By half past 6 P.M. we had furled everything but the close reefed fore and main topsails and fore-topmast stay-sail. The barometer had fallen to 28.50 and continued falling, and the storm had already commenced. At 8 P.M. the gale was very heavy, attended with incessant flashes of lightning in the eastern board and raining in torrents. The wind had veered to S.S.W. by compass, or about S. by E. true course.

At 10 P.M. the fore top sail and fore top mast stay-sail were taken in, and very soon after, the wind changed to west and the gale was so terrific that I did not dare to loose any canvass to wear ship. The barometer had fallen to 28.25, that is a quarter of an inch lower than I had ever seen it before at sea. The watch were all the time employed during the night securing the sails to the yards by putting on extra gasgets. It was blowing so hard that it was with difficulty men could go aloft, or hold on when there, and it took four or five to do what one could easily have done in moderate weather.

Thursday, December 12, at last dawned upon us, and the ocean presented one of the most grand and awful spectacles that the eye of man ever beheld. Lashed into fury by the tempestuous force of the wind, it was one clear broad sheet of angry foam as far as the eye could reach. At one moment we were walled in between two immense heaps of water which seemed ready to engulf us; at the next we were upborne to the very summit of one of these same watery mountains and looking down into the valleys on either side. Everything about deck was made as snug as possible. Extra lashings were put upon spars, boats, etc., and every precaution taken

to prevent damage; and the men were cautioned to be about deck only when duty called them there. The Dorchester was an excellent sea boat, and as strong a ship as ever was built. At thirty minutes past noon the clew of the main top sail gave way, and the sail blew into ribbons. Our ship continued tight and strong and made no complaint and scarcely a bucket of water had been shipped on deck for the day. Even after the loss of the main top sail she continued to make good weather. At 3 P.M. the spencer was set. At about half-past 3 P.M. as I was standing in the companion way, the man at the wheel sung out, 'Look out, look out there!' I immediately closed the companion door and slipped down one stair; by the time I had done so the sea was upon us bringing in the companion doors and carrying me with them to the cabin below. The crash on deck was loud and long, tremendous beyond the power of conception. It seemed as though the ship must be broken to atoms. If she had been lifted fifty feet in the air and dropped on a ledge, the concussion could not have seemed greater. The water continued pouring down on me so long that I thought the ship was sinking. I had lost my breath and was completely exhausted before it ceased. As soon as I could I dragged myself on deck. Who, my friend, can describe to you the spectacle that met my sight, or who describe my emotions on beholding it! Masts gone, bulwarks on one side nearly gone, boats stove, houses stove and gone and the whole surface of the water around covered with things from the ship and fragments of the wreck. One man only was to be seen on deck. He had secured himself to the wheel by a bowline around his body and made fast to the windward. Of him I inquired if all the rest of the watch was lost. He said Mr. Hooper (second officer) was and he believed the carpenter; he did not know about the rest. I looked around for these men, but nothing could be seen of them. Mr. Hooper had sailed with me

from the commencement of his sea life. He was my nephew, a good officer and a smart seaman, beloved and respected by everyone on board. Judge then what my feelings were to lose him at such a time. Nothing, however, could be done for the dead, and my attention immediately reverted to the living. Forty-eight living beings yet remained on board and the question for me then to solve was, 'What can I do to save them?' Orders were immediately given to cut clear of the spars. We now found the main and mizen mast, with all the spars attached, were on the weather side of the ship, hanging by the lee rigging which led down under the keel. Strange as it may appear, *the ship had been carried over her spars*. Probably the great leak in the ship was in her bottom, caused by striking against these spars when she went over them, or before we could get clear of them. The order to clear the wreck was no sooner given than obeyed. Axes, hatchets, and knives were put in requisition and men went to work in perfect order, with an earnestness and resolution which seemed to say, if our lives depend on our exertions, we will save them. By the time we got rid of our spars, it was dark. The pump was sounded and two feet of water was found in it, while as much more was swashing about between decks. 'To the pumps, men, to the pumps!' The pumps were set to work. I now had a moment for reflection, if one could reflect in such a scene. I was in the middle of the ocean,—about 700 miles from the nearest land, about 100 miles north of the usual track of vessels crossing the Atlantic, all my spars gone by the board, my boats both stove in, my ship broken down amid-ships, and leaking so fast that I did not expect to keep her afloat until morning; old ocean's angry surges seemed ready to swallow us up every moment; the blackness of darkness was around us; the wind was roaring and howling on deck; men were groaning; women screaming and children crying below. Such was our situation and such our prospects on the



night of the 12th of December—a night I shall not soon forget—a night long and dreary. At daylight on the morning of the 13th of December, we had eight feet of water in the hold. Our ship would but just swim, and it was evident that unless we could find and stop some of the leaks, a very few hours would terminate our earthly pilgrimage. On examination we found twelve chain bolts drawn from the lee side of the ship, leaving, of course, as many holes of about one and a quarter inches' diameter through the ship's side. These rolled deep under the water at every roll of the ship, so deep that men were unwilling to risk themselves over the ship to stop them. An attempt was made to stop them by driving long plugs through from the inside. In this we failed and I determined to try the outside. Short plugs of pine about six inches long and sharp at one end were prepared, when one of the men, with a rope made fast around him, got over the side with a plug in one hand and top mall in the other. Watching his opportunity, he would stick in the plug and if possible strike it once with his top mall and then look out for himself until another roll of the ship allowed him to drive it in tight. In this way we succeeded in plugging all the bolt holes.

We had accomplished that much by 11 A.M. Both pumps were kept going, three men working at a time at each pump, being relieved every half hour. We had had no sleep during the night—wet to the skin all the time and hard at work for our lives, we were very much exhausted. We had no time to make a fire and could not have made one if we had. Some bread, cheese and cold meat were given to the men, and a table-spoonful of brandy was given to each.

Both pumps continued all that day and all that night and all day on Saturday, the 14th. This day, (Saturday) we succeeded in making a fire and boiling some beef and making some tea. The water continued swashing about, so as to extinguish the fire several times

while doing this, and it was with difficulty the men could keep themselves at the pumps even with the aid of bow-lines. This day we got up one of our chains and let it go overboard to lighten ship. At 3 P.M. we saw a ship some six or seven miles off, but she took no notice of us. At 8 P.M. having had no sleep since Thursday morning, one watch were permitted to go below and at 12 o'clock midnight the watches were changed, so as to give each watch four hours' rest. At 4 A.M. on Sunday a request was made to permit each watch to have two hours more rest. I was inclined to grant it. But on sounding the pumps we found the water had gained six inches in the last eight hours and all agreed that we must rest no more for the present. At 6 A.M. the passengers, men, women and boys were sent for from the steerage to go to work to lighten ship by passing goods up through the cabin. One woman said as she came into the cabin, that when coming along the deck, she did not know whether she was overboard or not. All seemed dejected and desponding, but *something to do* is a sovereign remedy for such maladies. No sooner were they fairly at work than their countenances began to brighten and they became quite cheerful. Before noon the girls made themselves merry, joking each other about selecting wedding dresses from among the printed muslins and other fancy goods we were throwing overboard. On opening a package of Highland shawls all the women selected one each. As they were all wet and had not dry clothes for a change, I made no objection, only telling them that they must not be difficult about the pattern, nor spend much time in the selection, as we had no time to lose. This forenoon succeeded in making hot tea which, with bread and cheese, refreshed us very much. One watch, while resting from the pumps, got one anchor off the bows and let it go overboard and hove over all the water casks and everything about deck, except spars, in order to lighten the ship. Thus all hands, men,

women and children, who were able, were kept at work.

At about 3 P.M. a sail was seen by one of the men, who immediately gave notice by the cry of 'Sail ho.' A more joyful sound never vibrated on my ears. I was below at the time breaking open boxes of goods. Taking my spy glass in hand, I hastened on deck. The distant sail was but a speck above the horizon, but as she bore east of us I was confident she was bound westerly and would pass near enough for us to be seen by her, if night did not too soon draw its dark veil over us. All hands kept steadily at work while I watched the approaching stranger. It was an hour of the most intense anxiety. Is she a small or a large vessel? If small will she be able to take us all off? Small or large, can she take us off as the weather is? Will she see us before dark? These and a thousand similar questions arose to the mind in quick succession. One thinks fast at such a time. Before we could decide anything as to the size of the vessel approaching, one of the crew came to me and put the following question: 'If she should prove to be a small vessel and the captain cannot or will not take us all, who shall go first?' Without hesitation I answered, 'The women and children.' To this he gave his hearty and cheerful consent and added, 'We (the crew) have been talking about it and we will stick together! All or none!' I mention this to show the good order and good feeling among the crew.

But the speck above the horizon soon increased in size to our vision and in about three quarters of an hour we made her out a large ship. Soon she came near enough for us to see her hull as she rose on the top of the sea; but she continued on her way and it was evident she had not seen us. As she was steering she would have gone about four miles from us. All were still at work pumping and lightening the ship but every eye was turned toward the stranger. All had been done that we could do to attract her attention; still

she pursued her undeviating course, and every countenance began to wear the gloom of despondency. The men began to tell each other of having passed wrecks at sea when their captain would not go near them. But now, when we had begun to despair, the noble ship, following the impulse given by her rudder, swung boldly round, turning her head directly for us; her yards were braced round, light sails taken in and all doubt of her coming to our rescue entirely ceased.

Orders were given for everyone to leave work and prepare a small bundle of clothes in readiness for leaving the ship. It was by this time so dark that a lantern was hung up as high as we could get it that we might not be lost sight of. Soon the ship came as near as her captain thought safe and hove to with her main top-sail to the mast. After a short time (which to us however seemed long) a boat was seen close to us. It was so dark that she could not be seen when she left the ship. I hailed her and asked if they would take us off. The officer answered 'Yes, we will try to save all lives, but my orders were not to attempt to save any baggage.' This may seem like an unkind order—I confess it seemed so to me at first; but a moment's reflection convinced me of its perfect propriety. To understand this it will be necessary to consider the circumstances under which it was given. It was dark. The barometer was standing at 28.40, low enough for a hurricane at that very moment; the weather was squally; black and angry-looking clouds were hanging all around us; no one could tell that we should not have a gale the next minute, and there was quite as much sea running as a boat could live in.

All must see that life was the first object—that it was no time to keep men in a boat to save property. We had, besides the ship's company, 29 passengers, mostly women and children. Our ship was rolling so much (and the same might be said of the other ship) that a

boat would be stove and swamped in a moment if hauled along side so as to come in contact with her. How then were these women and children to be transferred from the ship to the boat? To do this at such a time was no children's play. A single wrong movement might prove fatal, not only to the person we were putting on board, but to all in the boat and by the loss of the boat, fatal to all in our ship, and by weakening the other ship's crew, might endanger her safety. To accomplish the transfer a rope was prepared some twenty yards long, with a bowline in the middle sufficiently large to admit of its being put over a person's head and down under the arms, the loop being under the waist. When a child was to be transferred the loop was made smaller. When the boat came she was manned with five men. One man being stationed in each end, a rope was thrown to either, to enable them to hold her parallel with the ship's side, while two others with others with their oars kept her from coming too near. One end of the bowline was given to the other man in the boat. Everything being thus ready, a person was put into the bowline and put over the side of the ship; watching a good opportunity, orders were given to lower away and to the man in the boat to haul at the same time. Sometimes the drop was rather quick, but it was no time to think much of small bruises. When all was prepared, I went to the cabin for a woman who had four children. She thanked God and rejoiced much. But when she came on deck and saw how dark it was and how much sea there was, and a little cockle shell of a boat knocking about long-side, one moment close to the ship and the next ten or twelve feet off, her courage entirely failed her. She said she could not and would not go. It was no time to argue the question. She was put into the loop and safely transferred to the boat; but it took two men to break her hold of those who put her over the ship's side. Her children were next put

into the boat, and care was taken throughout not to separate families; especially not to separate mothers and children, for it was very uncertain when a boat left us whether the wind would continue long enough for her to return. So very uncertain did I consider this that I took my son into the cabin and directed him to go in the first boat that should take any of the crew and divided my money with him to enable him to pay his passage home from New York if I should be unable to follow him. The boat was so small that only six or seven persons could be taken at a time. A second boat was got out but only in season to make one trip. After the first boatload the women had more confidence and no resistance was made. Having seen every soul safely transhipped without one of them into the water I prepared to leave myself. This was of course not quite so easy or safe as being lowered by others and those in the boat seemed a little alarmed for fear I should swamp them. Making a rope fast on board, I got over the side holding on by it and, directing those in the boat when to haul near, I lowered myself into her and bore off. This was the first trip of this boat, being the last put out, and she was in charge of the carpenter. As soon as I got into her he desired me to take charge as he was unused to the management of a boat, and I did so. I have been used to a boat almost from infancy but I found it required great care to keep her from being capsized or filled by the sea as it rolled by us. The ship had drifted by this time a quarter of a mile off or more. We had rather overloaded our boat. It was so dark we could not see one fourth of the distance between the two ships. But we got safely alongside and on board.

I publicly stated soon after my arrival home that I was heartily welcomed on board the Rochester by Captain Britton. It was about eight o'clock when I got on board. I was immediately invited into the cabin. Having stated to Captain Britton that I had a son among

the crew he was immediately sent for. We met there. The scene had changed since I divided my money with him on board the *Dorchester*. We shook hands, but neither spoke. Our emotions were too deep for utterance. The next day I saw all my passengers and looked after their comfort as well as I could and they all seemed grateful. The crew were completely worn out. Some of them could not stand when they got their boots off. Several of them had their wrists and arms very sore with chafes and bruises. A week or ten days' rest, however, restored all to comfortable health. We were on board the *Rochester* twenty seven days and arrived in New York on the 11th of January. I made arrangements with Messrs. Harviden and Co. to send my passengers to Boston, and they, and as many of my crew as wished to come to Boston, came on in the same steamer, and we all arrived there on the morning of the 12th.

Here I would stop—my account is finished; but I must say a word about our providential escape.

The *Rochester* left Liverpool six days after we did. The ship *St. George* was put in opposition to the *Rochester* and sailed in company with her. In fact she was to run a race with her across the Atlantic. A few hours out, say about 30 miles from Liverpool, the wind came ahead for them to pursue the usual course out,—the channel south of Ireland. Both ships continued turning to windward until dark. Then Captain Britton, in order to get clear of the *St. George*, shaped his course out the north channel or north of Ireland,—a very unusual thing in winter and not often done in summer. From the moment the ship's course was altered, Captain Britton had a fair wind until he came up with us, and from the time he cleared the land he did not change his course until he saw the *Dorchester*. Coming out the north channel brought Captain Britton directly in our track. Had he been detained only two hours by calm or head winds we would not have seen him nor

he us. Again, we tried hard on Saturday to get our ship's head round to the south, so as to make some progress in that direction. Had we succeeded we would have been out of the track of the *Rochester* and perhaps never have been seen or heard of.

Very truly yours,  
Eben Caldwell.

Ipswich, March 19, 1845.

*Contributed by Dana J. Pratt*

#### A SUIT AGAINST JONATHAN WOODMAN OF NEWBURY, 1694

ESSEX ss

William by the Grace of God of England Scotland France and Ireland King Defendr of the ffaith &c To Our Sherriff Of Our County of Essex His Undersherriff or Deputy Greeting We Command you to attach the goods or Estate of Jonathan Woodman of Newberry in the County aforesd Shipwright otherwise called Jonathan Woodman of Newbury in ye County of Essex in New England to the value of Eight hundred pounds and for want thereof to take the body of the sd Jonathan Woodman (if he may be found in yor princt) and him safely keep, so that you may have him before Our Justices at Our next Superiour Court of Judicature to be holden at Ipswich for our sd County on the Third Tuesday of this instant month of May then & there to answer to Capt Henry Child Pool now resident in Boston otherwise called Henry Child Pool Gent: of the (seal) parish of Acton in the County of Middlesex in old England Action of breach of Covenant for that whereas by a certain Indenture made the 22nd day of July Anno Dom 1694. between the sd Jonathan Woodman of the one party and the sd Henry Child Pool of the other party for the Considerations therein mentoned the said Jonathan Woodman did thereby covenant & agree to and with the sd pet That he the said Jonathan Woodman att his own proper cost and charge at some convenient place at Newberry aforesd should & would in good workman like manner & forme finish & compleat the Hull or body of one new Brigantine (Called the Ione for the sd pet with good new sound seasoned lumber planck Masts & yards & with other materialls and of the dimensions therein specyf[ied] [margin of six lines torn off] and to have a fifth [fife] rail on the quarter deck & to calk her well within board & without [with] two threds of oakum & to have all things done as well not mentoned as mentoned f[or] such a vessell according to the manner of building in New England and to launch her [—] into the water & deliver her well to the sd pet & the sd pet should have a sufficient [bill] of sale and that the sd Jonathan Woodman should com-



pleat the sd Hull & launch it [within] two months after the sealing of the sd Indenture and the sd Jonathan Woodman did thereby further contract to grave & recaulk the sd Brigantine, and to provide every thing due to the sd pet the sd Jonathan Woodman did bind himself in the sum of four hundred pounds in curr money of New England to performe the sd contract as by the said Indenture here in Court produced bearing date the sd 22d day of July 1694 under his hand & seal of the sd Jonathan Woodman more fully appeares And the sd pet in fact saith That altho he hath performed all & every of the Covenants & agreemts in the sd Indenture specified on his part & behalf to be done and performed Yet the said Jonathan Woodman hath broke his said Covenant for that he did not finish & compleat the hull or body of the sd Brigantine at his owne proper cost & charge in good work man like manner & form nor did the sd Jonathan Woodman put a fife rail; on the quarter nor calk her well within board & without with two threds of oakum nor deliver her well to the sd pet with a sufficient bill of sale for the Hull or body of the sd Brigantine and the sd Jonathan Woodman did not compleat the sd Hull & launch her within two months after the sealing of the sd Indenture nor grave or recaulk the same and provide every thing according to the form & effect of the said Indenture whereby an Action doth accrew to the pet to have & receive of the said Jonathan Woodman the said four hundred pounds Yet the said Jonathan Woodman (altho: often there unto requested) the sd sum to the pet to pay hath hitherto denyed and still denyes to pay the same to him. To the pets damage six hundred pounds in money as shall then & there appear with damages And have you there this Writt Witnesse William Stoughton Esqr at Boston the fourth day of May In the seventh Year of Our Reigne Anno qe [sic] Dom 1695.

Jona Elasson Cler  
(Indorsed on back)

Essex Attachmt  
Ipswich May 1695

Salem May ye Sixth 1695  
Capt Hen Child Pool  
v

Jona Woodman

I do Constitute Mr Phylip Fowler of Ipswich to be my Lawful Deputy to serve ye within written attachement and to make Return as ye Law Direktes,

pr Geo: Corwin Sherriff  
of ye County of Essex

May the seventh 1695 I then atachid the House & 8 ackeres of land with 13 ackeres of plouland all which Mr Jonathan woodman shoud me & tendered to be his owen clere estate & avouched so to be by Joseph Mayehu & red this attachement to said woodman & gave him a copey of it by me

Philip flouler Deputy  
to the Sherriff

Jonathan Woodman, son of Edward, Merchant of Newbury in 1635, was born there 5 November 1643, married Hanna Hilton 25 July 1668, became a Freeman 26 December 1668 and died 21 November 1706. He was a man of prominence in the community, took the Oath of Allegiance in 1678, was a sergeant of Militia and was appointed on several committees by the Selectmen of Newbury.

Jonathan had a shipyard at the foot of Woodman's Lane, later Kent Street, Newburyport, as early as 1675. The lawsuit described above was not the first in which he had been involved. As early as March 1675/6 he was before the Admiralty Court in Boston and was fined ten pounds for not fulfilling his contract on the ship *Salamander* in time. He appealed the case and the fine was remitted.

On 25 March 1681 Edward Woodman conveyed to his son Jonathan his house, barns, plough land, orchard and pasture. On 8 November 1695 Jonathan mortgaged this property to Tristram Coffin who re-conveyed it to Jonathan 7 May 1697. It was not possible to learn the result of the trial or to obtain a further description of the brigantine *Ione* as the records of the Ipswich court, which very likely would have given this information, are missing after March 1692. It would seem not unlikely, however, from what information we have, that Jonathan lost the suit, mortgaged the property given him by his father to pay his fine, and in the course of the next year and a half made enough money to redeem his property.

#### BIBLIOGRAPHY

- Records and Files of the Quarterly Courts of Essex County, Mass.*, vols. IV-VIII, (Essex Institute, Salem, 1914-1921).  
John J. Currier, *History of Newbury, Mass.* (Boston, 1902).  
Cyrus Woodman, *The Woodmans of Buxton, Maine* (Boston, 1874).  
*Essex Antiquarian*, vol. III (Salem, 1899).  
*Vital Records of Newbury, Mass.*, vol. II (Essex Institute, Salem, 1911).

Contributed by L. W. Jenkins.



## BIBLIOGRAPHY

### *Recent Writings in Maritime History*

BY ROBERT GREENHALGH ALBION

**A**BBREVIATIONS: *USNIP*, *United States Naval Institute Proceedings*; *S&S*, *Ships and the Sea*; *MCF*, *Maine Coast Fisherman*; *D&HA*, *Dock and Harbour Authority*; *SBF*, *Steamboat Bill of Facts*.

The next issue will include a section of 'Addenda' to include pertinent titles published since 1945 that had been omitted from the original lists.

All dates 1952 unless otherwise noted.

#### I. General

- ARGYLE, E. W., *Icebreakers and Ice-Rescues*, 4 pp. *Sea Breezes*, Dec.
- BENNETT, LINCOLN, *The Miracle of the Sea (The World We Live in, II)*, 21 pp. *Life*, 9 Feb. 1953.
- BOLANDER, L. H., *Notable Naval Books of 1952*, 4 pp. *USNIP*, Jan. 1953. Annual critical survey by Librarian of the Naval Academy; includes technical works and fiction not listed in this bibliography.
- COLYER, W. J., *George Thomas, the Sailor Rajah. United Service*, Nov. Irish mariner-adventurer in India, 1797-1802.
- COMBS, H. E., *Shellbacks; Sons of Neptune*. \$2.00. New York, Pageant. Account of 'crossing the line' ceremonies.
- CONNOLLY, R. L., *USN, The Principles of War*, 9 pp. *USNIP*, Jan. 1953.
- CREASEY, RONALD, *Salvage! 6 pp. Annual Dog Watch (Shiplovers' Societies of Australia)*. Towing of hijacked rum-runner in Atlantic, 1924.
- FAY, E. A., *Thanks to Yellow Fever*, 6 pp. *USNIP*, Dec. Circumstances leading to establishing of first American hospital ship at Staten Island Quarantine, 1859.
- FORD, N. D., & REDGRAVE, W. J., *Northbound 3 Goes Through*, 8 pp. *S&S*, March 1953. Detailed description of a Panama Canal passage in a United Fruit freighter.
- GAROCHE, PIERRE, *Dictionary of Commodities carried by Sea*, 357 pp. \$6.00. New York, Cornell Maritime Press.
- GOLDING, C. E., & KING-PAGE, D., *Lloyd's*, 220 pp. \$4.50. New York, McGraw Hill. Chief emphasis on present organization; final chapter devoted to Lloyd's in World War II.
- (GOODCHILD, C. R.), *The Life and Work of Albert Mansbridge*, 2 pp. *Seafarer (Seafarers' Education Service)*, Jan. 1953. Founder of Seafarers' Education Service, 1876-1952. Article followed by 7 pp. of editorial and personal memorials.
- GROSS, ALAN, *Shipboard Hygiene in the 'Forties*, 3 pp. *Annual Dog Watch*. Conditions on run to Australia in 1840's.
- KELLY, W. J., *Haven for Mariners*, 3 pp. *S&S*, March 1953. Seamen's Church Institute, New York.
- KEMBLE, OLIVER, *John Barleycorn Afloat*, 2 pp. *Trident*, Dec. Gives several striking case histories. 'Whether I have had more than my share of seafaring drunks I do not know.'

- KING, THOMSON, Water, Miracle of Nature, 237 pp. \$3.50. New York, 1953, Macmillan.
- KNIGHT, F. J., Disappearing Islands, 2 pp. *Trident*, Dec. Numerous brief case histories.
- KOTSCH, W. J., USN, The Jet Stream, 6 pp. *USNIP*, Dec. 'Three to ten miles above sea level a meandering river of air flows at speeds up to 300 m.p.h.'
- MARINE, J. B., Sunken Treasure in Hell Gate, 3 pp. *Coronet*, Dec. Hussar gold again.
- MARTELL, A., Ocean Towage and Rescue Work, 7 pp. Thames Shiplovers and Ship Model Society, *Secretary's Monthly Letter*, April. Summary of talk by Marine Supt. of Overseas Towage & Salvage Co.
- MARTIN, MICHAEL, & GELBER, LEONARD, *The New Dictionary of American History*, 695 pp. \$10.00. New York, Philosophical Library.
- MCCONKEY, J., Christmas at Sea, in Sail and Steam, 3 pp. *Sea Breezes*, Dec. See also D. D. Smyth below.
- NORRIS, M. J., *Law of Seamen*, 2 v. \$15.00 each. New York, Baker, Voorhis.
- QUIRKE, T. T., *Canoes the World Over*, 137 pp. \$4.50. Urbana, Univ. of Ill. Press.
- RAMSAY, G. O., The Smuggler's Trade: A Neglected Aspect of English Commercial Development. *Trans. Royal Hist. Soc.*, 5th Ser., II.
- RUSSELL, R. C. H., MACMILLAN, D. H., *Waves and Tides*, 348 pp. \$6.00. New York, 1953, Philosophical Library.
- SCHONFIELD, H. J., *The Suez Canal in World Affairs*, 174 pp. 15s. London, Constellation, 1953.
- SENIOR, WILLIAM, The History of Maritime Law (Maritime Miscellany Series, No. 8), 16 pp. *Mariner's Mirror*, Nov. Compact summary with useful bibliography.
- SMYTH, D. D., Christmas in the *Lawhill*. *Trident*, Dec. Observance aboard 4-masted bark, 1936.
- WASHBURN, S., JR., Down to the Sea by Subway; Rockaway Lifeboat Station. *Saturday Evening Post*, 20 Sept.
- WARNER, H. V., Sailors' Homes and Boarding Houses, 4 pp. *Annual Dog Watch*.
- WEIGHTMAN, A. E., Heraldry at Sea, 4 pp. Thames Shiplovers and Ship Model Soc., *Secretary's Monthly Letter*, March. Figureheads and ships' badges.

## II. Exploration, Navigation, Cartography

- CALVERT, J. W., A Short History of the Institute of Navigation, 6 pp. *Navigation*, Sept.
- CAMERON, H. C., *Sir Joseph Banks, K.B., P.R.S. The Autocrat of the Philosophers*, 341 pp. 25s. London, Batchworth. Promoter of Cook's first voyage, in which he participated.
- CHAMBERS, J. H. L., JR., The Discovery of North America, 7 pp. *USNIP*, Jan. 1953. Account of the Norse explorations, 986-1014.
- DAVIES, A., The 'first' voyage of Amerigo Vespucci in 1497-8, 7 pp. *Geog. Journal*, Sept.
- FINDAHL, THEO, Was Vinland near Chesapeake Bay? *Am. Scand. Rev.*, No. 3.
- FLEMING, R. F., The Search for LaSalle's Brigantine *Le Griffon*, 6 pp. *Inland Seas*, Winter. To be continued.
- HANKS, CARLOS, The Captain Could Not Swim, 2 pp. *Rudder*, Nov. Capt. Cook and his death.
- HARDING, L. A., *A Brief History of The Art of Navigation*, 142 pp. \$3.75. New York, William-Frederick.
- HARLOW, V. T., *The Founding of the Second British Empire, 1763-1793, I, Discovery and Revolution*, 664 pp. \$8.75. New York, Longmans. Considerable on Cook and the Pacific discoveries.
- HITCHENS, H. L., & MAY, W. E., *From Lodestone to Gyro-Compass*, 219 pp. \$4.75. New York, 1953, Philosophical Library.
- HOLMES, SIR MAURICE, Collecting Captain Cook. *Book Collector*, Autumn.
- LLOYD, CHRISTOPHER, *Captain Cook*. 10s 6d. London, Faber.
- MARTIN, H. P., USNR, Navigating to Korea, 3 pp. *Motor Boating*, Dec. LST, Korea-bound, early 1951.
- MITCHELL, CARLETON, *Beyond Horizons, Voyages of Adventure and Discovery*, 312 pp. \$3.95. New York, 1953. Norton. An anthology.
- MONKHOUSE, F. J., & WILKINSON, H. R., *Maps and Diagrams, their Compilation and Construction*, 330 pp. \$6.00. New York, Dutton.
- MOODY, A. B., USNR, Problems in defining Navigational Terms, 10 pp. *Motor Boating*, Nov. By Deputy Director, Division of Navigational Science, Hydrographic Office.
- O'MAY, HARRY, Discovery of Tasmania, 5 pp. *Annual Dog Watch*. Extracts from Abel Tasman's journal, 1642, with comments.

- PHARES, ROSS, *Cavalier in the Wilderness: The Story of the Explorer and Trader, Louis Juchereau de St. Denis*, 276 pp. \$3.50. Baton Rouge, LSU Press. Trade and exploration in the Gulf region and its hinterland, early 18th century.
- QUINN, D. B., Christopher Newport in 1590. *North Carolina Hist. Rev.*, July.
- ROBINSON, A. H. W., Captain William Bligh, R.N., Hydrographic Surveyor, 6 pp. *Empire Survey Rev.*
- U. S. NATIONAL ARCHIVES, *Geographical Exploration and Topographic Mapping by the United States Government* (Nat. Arch. Pub. No. 53-2). Washington, National Archives.
- WRIGHT, J. K., *Geography in the Making: The American Geographic Society, 1851-1951*, 437 pp. \$5.00. New York, Am. Geog. Soc.
- WYLIE, P. E., Nathaniel Bowditch and His Work, 9 pp. *Navigation*, Sept.

### III. Merchant Sail and General Shipping—North America

- BUNKER, JOHN, Famous Old Lee Shore Claimed Many An Old Downeast Coaster. *MCF*, Feb. 1953. Based on log kept by F. E. Stevens, keeper of Plum Island Lifesaving Station, at Newburyport, Mass., 1891-1916.
- Capt. Manley Grant Longs for Penobscot Sailing Days, *MCF*, Dec.
- EDWARDS, R. G., Ships Afire, 6 pp. *Annual Dog Watch*. Succession of fires encountered and described by a captain's wife in 1851.
- FORBES, ALLAN, & EASTMAN, R. M., *Yankee Ship Sailing Cards*, v. III, 99 pp. Boston, State Street Trust Co.
- (LYMAN, JOHN), The Pendletons of Ilesboro. *Log Chips*, Jan. 1953. A Maine 'family of shipmasters and shipowners . . . including some of the most colorful characters that ever chartered a vessel.' To be continued.
- Three Masted Schooners built on the Atlantic Coast, 3 pp. *Log Chips*, Jan. 1953. Continuation of list, covering years 1888 back to 1884. Thorber list of Square Riggers built in the U. S. also continued, for 1878.
- MACMULLEN, JERRY, Never set sail on a Sunday, 2 pp. *Westways*, Dec. Loss of 4-masted bark *May Flint*, former steamer, in collision with U.S.S. *Iowa*, San Francisco Bay, 1900.
- MUNROE, R. K., ed., Excerpts from the Diary and Letters of Abbot Kinsman from San Francisco, the Pacific, Hong Kong and the Philippines, 22 pp. *Essex Inst. Hist. Coll.*, Jan. 1953. 1862-1863; to be continued.
- 'PEREGRINE,' pseud., Trans-Atlantic Racing. *Trident*, Dec. Brief historical review, since 1866.
- SHAFFER, ANITA, The Williams Brothers, Merchants and Shippers, 1825-1850. *Bull. Bus. Hist. Soc.*, Jan.
- Ships of Trees: Strange Vessels that Sailed from Pennsylvania Ports, 2 pp. *Pa. Forests & Waters*, Sept.-Oct. Huge seagoing 'raft ships' of logs, sailed across the Atlantic.
- SLOCUM, VICTOR, *The Life and Voyages of Captain Joshua Slocum*. 215. London, Hart-Davis. Account of the solitary sailor and his setting, by his late son.
- WOLFE, REESE, *Yankee Ships, An Informal History of the American Merchant Marine*, 287 pp. \$3.75. Indianapolis, Bobbs-Merrill.

### IV. Merchant Sail and General Shipping—Other Regions

- ANDREWS, K. R., ed., Thomas Fenner and the Guinea Trade, 1564, 3 pp. *Mariner's Mirror*, Nov. Copy of deposition in High Court of Admiralty records.
- BARKER, ROLAND, Not Always to the Swift, 5 pp. *S&S*, Jan. 1953. Race of square-riggers, Australia to Queenstown, 1919.
- DANIEL, HARRY, The Fate of the *Loch Nevis*, 3 pp. *Annual Dog Watch*. Steel 4-masted bark, Loch Line, 1894; converted to steamship during World War I; burned off Patagonia, 1922.
- DAVIS, K. G., The Origins of the Commission System in the West Indian Trade. *Trans. Royal Hist. Soc.*, 5th Ser., II.
- DOLLEY, R. H., The 'Nef' Ships of the Ravenna Mosaics, 6 pp. *Mariner's Mirror*, Nov.
- GREENHILL, BASIL, Boatbuilders of the Burri Ganga. *Trident*, Nov.
- The Sailing Boats of Chittagong, 3 pp. *Ibid.*, Dec. Sequels to his 'Boats and Boatmen of East Pakistan,' Oct.

- GRIFFITHS, G. I., Second Mate in the *Dolbarden Castle*, 4 pp. *Sea Breezes*, Nov. British bark, 1908-1909.
- JOHNSON, V. M., Sidelights on the Liverpool Slave Trade, 1789-1807, 18 pp. *Mariner's Mirror*, Nov. (LYMAN, JOHN), The French Shipping Subsidies, 2 pp. *Log Chips*, Nov. Accompanies his third list of 'Steel Sailing Vessels Built in France,' which carries record from 1898 back to 1893.
- MENNELL, R. O., Fate of the *Saragossa*, 3 pp. *Sea Breezes*, Jan. 1953. Wreck of 4-masted Scottish steel bark in Pacific, 1904.
- MOLYNEUX, H. T., RNVF, First Voyage Trials, 8 pp. *Sea Breezes*, Jan. 1953. Apprenticeship on British bark, 1911-1912.
- POSTAN, M. M., et al., *The Cambridge Economic History of Europe*, II, *Trade and Industry in the Middle Ages*, 604 pp. \$9.00. New York, Cambridge Univ. Press. Includes discussion of medieval commerce and shipping.
- ROWE, H. M., Round the World in the *Hollinwood*, 6 pp. *Sea Breezes*, Nov. Four-masted British bark, Aug. 1889-Dec. 1890.
- 'S. B.,' pseud., The Berthing of a Windjammer, 2 pp. *Annual Dog Watch*. Technique at Hobart, Tasmania.
- SCHLOTE, WERNER, *British Overseas Trade. From 1700 to the 1930's*; translated by W. O. Henderson & W. H. Chaloner, 181 pp. 22s 6d. Oxford, Blackwell. Based on series of statistical studies by the Institut für Weltwirtschaft, University of Jena, followed by analysis of structural economic changes of overseas trade.
- SIEPMANN, RICARDO, see Sect. VI.
- VILLIERS, ALAN, The Toughest Life in Modern Seafaring, 7 pp. *S&S*, March 1953. Persian Gulf pearl divers and their sambuks.
- Why I sailed the *Joseph Conrad*, 6 pp. *S&S*, Dec.
- WHITE, E. W., see Sect. XIV.

### V. Fisheries and Whaling

(Note that previous section numbers are changed from this point on.)

- BICKLEY, R. C., RN, The Fishing Port of Brixham, 2 pp. *Trident*, Dec. Devon, England.
- CRANE, JONAS, Seamon Crowley of Corea Says Sloop Lobstering was Work. *MCF*, Jan. 1953. Recollections of 62 years of Maine lobstering.
- GAMBA, CHARLES, *Italian Fishermen of Fremantle*, 100 pp. Paper; 10s 6d. Fremantle, Univ. of West Australia.
- INTERNATIONAL COURT OF JUSTICE, *Fisheries Case (United Kingdom v. Norway) Judgment of Dec. 18th, 1951* (Pleadings, Oral Arguments, Documents: Sales No. 83), Vol. I. \$5.00. New York, Columbia.
- KATKOFF, V., The Flounder Industry of the Soviet Far East, 10 pp. *Econ. Geog.*, April.
- LAYNG, CHARLES, High in the Prow, 2 pp. *S&S*, Jan. 1953. Greek sponge fishermen of Tarpon Springs, Fla.
- MIELCHE, HAKON, *There She Blows!* 227 pp. 12s 6d. London, Hodge. Description of Norwegian factory ship whaling in Antarctic.
- ORGANIZATION FOR EUROPEAN ECONOMIC COÖPERATION (OEEC), *Fish Marketing in OEEC Countries*. \$2.50. New York, Columbia.
- SATTERGOOD, L. W., Green Crab's Range has Moved Steadily up Coast since 1874. *MCF*, Jan. 1953. To be continued.
- STAGG, F. N., *North Norway: A History*, 205 pp. \$4.25. New York, Macmillan. Includes account of fisheries.
- TAIT, J. B., *Hydrography in Relation to Fisheries*. \$1.75. New York, Longmans.
- THOMAS, G. W., *Builders of Gloucester's Prosperity*. \$1.00. Gloucester, Cape Ann Savings Bank.
- VAN EVERY, ROD, A Dry-Land Sailor gets Salty, 4 pp. *S&S*, Dec. Great Lakes fishing tug.
- WHITING, E. M., & HOUGH, H. B., *Whaling Wives*, 293 pp. \$3.50. Boston, Houghton, Mifflin. Wives of the whalers, particularly from Martha's Vineyard, afloat or back home.

### VI. Merchant Steam, Ocean and Tidewater

- American-Built Ore Carriers Constructed on Coast for Great Lakes Service, 6 pp. *World Shipbuilding*, Nov. Includes detailed diagrams.

- BARBE, C., American Ships need Latest Safety Devices. *Saturday Evening Post*, 16 Aug.
- BOWEN, F. C., Panamanians Cancel Ships' Registrations, 8 pp. *Sea Breezes*, Nov. Details of 9 of the 12 vessels whose Panamanian registry was cancelled for dealing with Communist China.
- London's First Butterfly Boats, 3 pp. *SBF*, Dec. Pioneer excursion steamers to Greysend and Margate, 1815-1818.
- BREMNER, IAN, Tramp Ships from British Yards. Characteristics of Vessels of the Current Building Programme, 4 pp. *World Shipbuilding*, Nov.
- BRUCE, J. G., The Story of the *King Edward*, 2 pp. *S&S*, Jan. 1953. Career of pioneer turbine passenger steamer on Firth of Clyde, 1901-1952.
- The *Champollion* Disaster, 2 pp. *Ill. London News*, 3 Jan. 1953. Wreck of French liner off Beirut; also in *Life*, 3 pp., 12 Jan.; *Time*, 2 pp., 5 Jan.
- DANIEL, HARRY, see Sect. IV.
- DUNN, LAWRENCE, *Ship Recognition: Merchant Ships*. 12s 6d. London, Harrop.
- EDGECOMB, W. A. R., Fire! 2 pp. *S&S*, Dec. Pictures, with brief notes, of burning of Danish *Erria* off Astoria, Ore.
- FULLER, TIMOTHY, & FRIEDENBURG, HARRY, The Coast Guard's Finest Hour: The Day the *Pendleton* and the *Fort Mercer* Broke in Two, 4 pp. *Colliers*, 27 Dec. Loss of two tankers off Cape Cod, 18 Feb. 1952.
- GIBBS, V., *Passenger Liners of the Western Ocean*. \$6.00. New York, Staples.
- GORTER, WYTZE, & HILDEBRAND, G. H., *Pacific Coast Maritime Shipping Industry, 1930-1948*, Vol. I, *An Economic Profile*, 118 pp. \$2.50. Berkeley, Univ. of Cal. Press.
- HAVILAND, K. E., Fleet List of Ocean Steamship Company of Savannah, 2 pp. *SBF*, Dec.
- (HEGGE, ROBERT), Workhorses of the River, 2 pp. *S&S*, March. Towboats on Willamette River.
- HODGSON, A., Lost Propeller in the Pacific, 2 pp. *Sea Breezes*, Nov. Little British tramp covers 1,000 miles under sail, 1898.
- (HOPKINS, R. B.), Maiden Voyage of the SS. *United States*, 7 pp. *Shipyard Bulletin* (Newport News), July-Aug.
- ISHERWOOD, J. H., Royal Mail Line's *Aragon*. *Sea Breezes*, Nov. 'Show piece' of line, 1905-1917.
- The Pioneer *Aberdeen* of 1881, 3 pp. *Ibid.*, Dec. Aberdeen Line service to Australasia via Cape; sold to Turks for transport in 1906. Both articles in his 'Steamers of the Past' series.
- Italian-Built Ships for Russia: Passenger and Cargo Motorships *Norilsk* and *Tobolsk*, 2 pp. *World Shipbuilding*, Nov.
- LEWIS-JONES, TREVOR, What happened on the *Flandre*? *S&S*, Jan. 1953. Mechanical misfortunes on maiden run of new French liner to New York.
- LONG, E. J., Last Voyage across the Bay, 7 pp. *S&S*, Dec. End of Chesapeake ferry service to Eastern Shore with opening of new bridge, 30 July 1952.
- LYTLE, W. M., comp., *Merchant Steam Vessels of the United States, 1807-1868*, 'The Lytle List.' Compiled by William M. Lytle from Official Merchant Marine Documents of the United States and Other Sources. Edited with an Introduction by Forrest R. Holdcamper. Publication No. 6, Steamship Hist. Soc. of America, 294 pp. \$5.00. Mystic, Conn., The Society.
- Based on researches of Lytle, Deputy Commissioner of Navigation in the Dept. of Commerce; published officially in part in 1931 and amplified until his death in 1944. The work was continued by Holdcamper of the National Archives, assisted by John Nolen and C. Bradford Mitchell. List consists of four parts: A. Merchant Steam Vessels of the U. S., 1807-1868; B. Losses of U. S. Merchant Steam Vessels, 1807-1867; C. Merchant Vessels of the U. S. Converted to Steam, 1807-1867; D. Steam Vessels Mentioned in Contemporary Newspapers or other Sources but not in Federal Records. Terminal date coincides with beginning of official annual *List of Merchant Vessels of the U. S.*
- McMAHON, P. M., Honolulu and the Orient, 7 pp. *S&S*, Feb. 1953. American President Lines; travel description with brief historical summary.
- MARX, DANIEL, JR., *International Shipping Cartels: A Study of Industrial Self-Regulation by Shipping Conferences*, 335 pp. \$6.00. Princeton. The first full-dress study of this important subject.
- OWEN, J. A., The Ship, 10 pp. *New Yorker*, 1 Nov. SS. *Gourko* of Hull, 1912, by the son of her first master.
- PATTON, WILLIAM, The Scrap Log of an Engineer. 12s 6d. London, Stockwell.
- Progress of Buries Markes, Ltd. *Sea Breezes*, Jan. 1953. Shipping house, since 1938.



- RADFORD, J., RNR, *West Coast Yesterdays: I—The Voyagings of the Cauca. Trident*, Jan. 1953. Experiences in small coasting steamer, Central America-Panama. To be concluded.
- Rough Seas ahead for Ship Operators, 3 pp. *Business Week*, 15 Nov.
- SIEPMAN, RICARDO, Hapag's History, 1847-1952, 38 pp. *Sea Breezes*, Dec. 1952-Jan. 1953. Comprehensive history of Hamburg American Line. Includes list of the company's ships in alphabetical order, through *Kronprinzessin Cecilie*, with brief remarks on each ship; this list will later be continued through the rest of the alphabet.
- SOMERVILLE, CAMERON, The Ubiquitous 'Puffer,' 3 pp. *Sea Breezes*, Jan. 1953. Little steamers in local services on the Scottish coasts.
- SOUTER, SIR W. A., The Sheaf Steam Shipping Co., Ltd., 12 pp. *Sea Breezes*, Nov. Tramp concern founded by author, 1906, at age of 26.
- U. S., MARITIME ADMINISTRATION, *Participation of United States Flag Ships in American Overseas Trade, 1921-51*, prepared by Division of Ship Statistics, Office of Subsidy & Government Aid, June 1952. 20 pp. Paper, 20 cents. Washington, GPO.
- VILLIERS, ALAN, The Casualty Page, 6 pp. *S&S*, Jan. Case histories from casualty page of *Lloyd's List and Shipping Gazette*.
- WALMSLEY, LEO, *Invisible Cargo*, 302 pp. 21s. London, Michael Joseph. Account of some of the Royal Dutch Shell activities, including descriptions of tanker trip to Curacao and trip by smaller 'laker' tanker to Maracaibo.
- WASHBURN, G. D., Some Hazards encountered in the Operation of Tank Vessels, 10 pp. *Soc. of Naval Arch. & Marine Eng. Bulletin*, Jan. 1953.
- The World's Largest Tankers, *World Unity and World Concord*, 2 pp. *World Shipbuilding*, Aug. 32,000 DWT, for Liberian corporation of Stavros Niarchos.
- WOLFE, REESE, see Sect. III.
- WORTH, JOHN, The Man who beat the Cunarders, 5pp. *S&S*, March 1953. E. K. Collins and the Collins Line.

### VII. Inland Navigation

- BALLERT, A. G., The Great Lakes Coal Trade: Present and Future, 12 pp. *Econ. Geog.*, Jan. 1953.
- BOGLE, V. M., New Albany as a Commercial and Shipping Port, 10 pp. *Indiana Mag. of Hist.*, Dec.
- BOWEN, D. T., *Shipwrecks of the Lakes*, 368 pp. \$5.00. Daytona Beach, The Author. By the same author: *Lore of the Lakes* (1945), and *Memories of the Lakes* (1946).
- BROWN, JOHN, *Two Against the Amazon*, 224 pp. 16s. London, Hodder.
- DUNCAN, M. H., *The Yangtze and the Yak. Adventure Trails in and out of Tibet*, 353 pp. \$4.25. Alexandria, Va., The Author, 200 East Luray Ave.
- Great Lakes Traders; A Growing Class of Small Transatlantic Vessels, 8 pp. *World Shipbuilding*, Aug. With detailed diagrams.
- Mining Coal from Pennsylvania's Rivers, 3 pp. *Pa. Forests & Waters*, Sept.-Oct. Salvaging washed-down anthracite from Susquehanna by dredging.
- LYTLE, W. M., see Sect. VI.
- Presque Isle Lighthouse, 3 pp. *Pa. Forests & Waters*, Sept.-Oct. Built 1872-1873 on Lake Erie near Erie, Pa.
- (RICE, FRANK), The Most Reluctant Lady of the Lakes, 5 pp. *Inland Seas*, Winter. Ore carrier *Crescent City*, built 1897; 'I never knew another ship who could get herself into such a mess of trouble.'
- SIEMEL, SASHA, The Jungle was my Home, 18 pp. *Nat. Geog.*, Nov. Houseboat on Paraguay and Miranda Rivers in heart of South America.
- SPARKIA, ROY, The Wreck of the *Ann Arbor* No. 4, 5 pp. *S&S*, March 1953. Gruelling experience of big car ferry in Lake Michigan gale, Feb. 1923.
- STRÖM, S. A. E., An Inland Passage. *Trident*, Jan. 1953. The Göta Canal, Sweden.
- TAYLOR, W. H., Genuine Antique Yachts and Engines, 2 pp. *Yachting*, Dec. The D. Cameron Peck Collection.
- THOMPSON, HERRICK, The Erie Canal, 5 pp. *Rudder*, Jan. 1953.
- VAN EVERY, ROD, see Sect. V.
- WAY, FREDERICK, JR., Luxury Liner of the Mississippi, 8 pp. *S&S*, Feb. 1953.
- West Africa's First Waterborne 'Petrol Train,' 2 pp. *Ill. London News*, 27 Dec. Tug and eight oil barges on Niger and Benue Rivers.

# VIII. Seaports and Coastal Areas

- ANDRONICOS, J., The Port of Piraeus (Athens), 6 pp. *D&HA*, Dec.
- ARNOTT, W. G., *The Alde Estuary. The Story of a Suffolk River*, 99 pp. 2s 6d. Ipswich, Norman Adlard, Nacton Road.
- BICKLEY, R. C., RN, see Sect. V.
- BOWN, A. H. J., Port and Shipping Turn-Round, 3 pp. *D&HA*, Jan. 1953.
- BROSSON, P. L., The Port of Cherbourg: Reconstruction of 'Quai de France,' 5 pp. *D&HA*, Jan. 1953.
- CASE, P. E., Boom Time in Kuwait, 20 pp. *Nat. Geog.*, Dec. Includes tanker traffic and building of dhows.
- CHECKLAND, S. G., Economic Attitudes in Liverpool, 1793-1807, 18 pp. *Econ. Hist. Rev.*, No. 1, 1952.
- CULIMAN, H. S., The Port of New York: Development of a Leading World Port, 6 pp. *D&HA*, Nov. By Chairman of Port of New York Authority.
- Easy Dollars on the Docks, 2 pp. *Life*, 15 Dec. New York waterfront graft hearings before New York State Crime Commission.
- EMERSON, W. A., JR., New New Orleans, 4 pp. *Colliers*, 29 Nov. Similar in *Newsweek*, 8 Sept.
- FORD, N. D., Via Veracruz: The Transshipment Port, 7 pp. *S&S*, Jan. 1953.
- 'FOREBRACE, LEIGH,' pseud., A Dockmaster's Digression, 3 pp. *Trident*, Jan. 1953. Discussion of duties and status, London.
- GRANBERG, W. J., From Rags to Riches: Port of Oakland, 10 pp. *S&S*, Dec.
- GROH, LYNN, Southampton: Passenger Port of the British Isles, 8 pp. *S&S*, Feb. 1953.
- HILL, SIR G. F., *A History of Cyprus*, IV, *The Ottoman Province, the British Colony, 1571-1948*, ed. Sir Harry Luke, 671 pp. \$13.50. New York, Cambridge.
- INGRAMS, HAROLD, *Hong Kong*, 307 pp. 27s 6d. London, H.M. Stationery Office. First of 'Corona Library' series, planned to include all the British colonies.
- LEIMDORFER, PAUL, The Port of Stockholm: A Leading Harbour of the Baltic, 13 pp. *D&HA*, Aug., Sept.
- McCAMPBELL, COLEMAN, *Texas Seaport*, 305 pp. \$3.95. New York, Exposition Press. Corpus Christi.
- MAYNE, S. B., The Sea of Severn. *Trident*, Jan. 1953. Bristol Channel.
- North Carolina State Ports, 8 pp. *World Ports*, Oct. Wilmington and Morehead City.
- ORDMAN, N. N. B., The Port of London: Some Engineering Aspects of Post-war Reconstruction and Development, 9 pp. *D&HA*, Sept., Oct.
- Port of Baltimore, 8 pp. *World Ports*, Nov.
- The Port of Genoa. Its Development in the last 50 Years, 7 pp. *D&HA*, Oct.
- REESE, GERALDINE, Pirate Paradise, 3 pp. *Grace Log*, Nov.-Dec. Cartagena, Colombia.
- SANDS, F. B., Home Port—New York, 3 pp. *Grace Log*, Jan.-Feb. 1953. Brief sketch of early history through clipper era.
- Savannah State Docks, 8 pp. *World Ports*, Nov.
- SCLANDERS, IAN, North America's Oldest Boomtown, 6 pp. *Macleans*, 1 June. St. John's Newfoundland.
- TAYLOR, F. H., Teddington to the Nore, 6 pp. Thames Shiplovers Soc., *Secretary's Monthly Letter*, June. Lower Thames.
- TEMPLE, PETER, *English Channel*, 223 pp. 25s. London, Hodder. 'Describes the ships, harbours, shores, lighthouses, tides and in fact the general life of the English Channel.'
- TOMLINSON, H. J., City by the Sea, 2 pp. *Grace Log*, Jan.-Feb. 1953. Valparaiso, Chile.

# IX. Shipbuilding and Allied Topics

- BUSHEY, A. C., USNR, World War II Shipbuilding and Ship Repair in New Zealand, 20 pp. *Jour. of the Am. Soc. of Naval Engineers*, Nov.
- EVANS, R. L., USN, Effectiveness of Preservation Methods employed in Inactivation of Naval Vessels, 4 pp. Soc. of Naval Arch. & Marine Eng., *Bulletin*, Oct.
- GARDNER, JOHN, Boatbuilding Tools—How to Make & Temper Tools, 2 pp. *MCF*, Feb.
- Wooden Planes did Fine Work. *MCF*, Dec.
- GREENHILL, BASIL, see Sect. IV.
- HALLOCK, A. G., Those shipbuilding Mathers of Port Jefferson. *Port Jefferson Times*, 2 Jan.
- HARDY, A. C., Shipbuilding in France: An Expanding Industry Extensively Rebuilt since the War, 4 pp. *World Shipping*, Aug.

- Shipbuilding in Italy: An Industry of Growing Importance, 4 pp. *Ibid.*, Nov.
- Shipbuilding in Holland: A Traditional and a National Business, 4 pp. *Ibid.*, Feb.
- HAYES, J. D., USN, Industrial Management and the Armed Forces, 9 pp. *Jour. of the Am. Soc. of Naval Engineers*, May. Study of its evolution.
- HUNTER, N. M., Changes in Ship Construction Methods, 1850 to 1950, 6 pp. *Ibid.*, Nov. Reprinted from *Engineering*, 6 June.
- JAMES, R. K., Scheduling of Naval Shipbuilding, 4 pp. *Soc. Naval Arch. & Marine Eng., Bulletin*, May.
- KENDALL, RONALD, Postwar Changes in Shipbuilding, 5 pp. *World Shipbuilding*, Aug.
- (LYMAN, JOHN), Another Thomaston Builder. *Log Chips*, Nov. David Patterson and his descendants.
- The Carlls of Long Island, 2 pp. *Ibid.*, Nov. Jesse Carll, Northport 1854-1883; David Carll, Northport 1854-1865, City Island 1865-1885; list of their vessels.
- Shipbuilding at Alexandria, Va., 2 pp. *Ibid.*, Nov.
- (LYON, A. C., & APPLEBEE, R. B.), The Crosbys of Bangor. *Log Chips*, Jan. 1953. Includes list of 50 vessels built, 1832-1883.
- The New Safety Regulations: Effects of the Safety of Life at Sea Conference, 1948, 3 pp. *World Shipbuilding*, Nov.
- POLLARD, S., Laissez-faire and Shipbuilding, 18 pp. *Econ. Hist. Rev.* No. 1.
- ROSS, N. S., Employment in Shipbuilding and Ship-Repairing in Great Britain, 10 pp. *Jour. Royal Statistical Soc.*, v. 115, Pt. IV.
- Supplement to New Hulls Built, 4 pp. *Shipyard News* (Newport News), Nov.-Dec. Brings up to date the listings in the Jan. 1946 issue 'of all the ships built or under contract in the yard.' Gives dimensions and dates of launching and leaving yard. Includes 'Hulls converted or reconditioned.'
- TAYLOR, J. P., Ship-breaking, 3 pp. *Trident*, Jan. 1953.

### X. Naval to 1939—North America

- BENT, B. O., The Mystery of the U.S.S. *Cyclops*, 4 pp. *SBF*, Dec.
- BIGELOW, D. N., William Conant Church and 'The Army and Navy Journal' (Columbia Studies in History, Economics & Public Law, No. 576), 277 pp. \$3.75. New York, Columbia. Evaluation of the journal's editorial policy from the Civil War to World War I, with much data on naval as well as military history.
- BRANDENBURG, H. H., *Navy Evidence; a Digest of the Law of Evidence as stated in Navy Court-Martial Orders, 1916-1951*, 179 pp. \$7.50. Lake Forest, Ill., Lake Forest Books, Box 943.
- CRANE, JOHN, *History of the United States Marine Corps*. \$1.00. Washington, Marine Corps Memorial Fund. A pictorial record.
- EAST, O. E., St. Augustine during the Civil War, 17 pp. *Fla. Hist. Quar.*, Oct.
- FAY, C. R., The Fall of Quebec, 3 pp. *Can. Hist. Rev.*, June.
- (HAWKS, F. L.), *Narrative of the Expedition of an American Squadron to the China Seas and Japan, under the Command of Commodore M. C. Perry, United States Navy*. Compiled at his request and under his supervision, by Francis L. Hawks. Abridged and edited by Sidney Wallach. 305 pp. \$5.00. New York, Coward-McCann. Abridgment of the first of the three volumes serving as Perry's report.
- HOFFMAN, D. G., Historic Truth and Ballad Truth: Two Versions of the Capture of New Orleans, 9 pp. *Jour. of American Folklore*, July-Sept. Analysis of a ballad of the 1862 action, composed by William Dinsmore, seaman on U.S.S. *Brooklyn*, with detailed critical annotation.
- HUNT, G. P., *The Story of the U. S. Marines* (Landmark Series), 192 pp. \$2.12. Eau Claire, Wis., E. M. Hale.
- JEURICH, C. H., The Great Duel: How Blackbeard met his End, 3 pp. *Rudder*, Jan. 1953. Fight of the celebrated pirate with Lt. George Maynard, RN, 1718.
- JOHN, EVAN, *Atlantic Impact, 1861*, 296 pp. \$3.75. New York, Putnam. Trent affair as viewed by fifteen contemporary Englishmen and Americans.
- JOHNSON, L. W., USN, When T.R. Streamlined the Officers, 4 pp. *USNIP*, Dec. G.O. No. 6, 4 Jan. 1909, requiring strenuous physical exercise.
- KOKE, R. J., Forcing the Hudson River Passage, October 9, 1776, 8 pp. *N. Y. Hist. Soc. Quar.*, Oct. Action of British frigates past American defenses above New York.
- KYTE, G. W., The British Invasion of South Carolina in 1780. *Historian*, Spring.

## RECENT WRITINGS IN MARITIME HISTORY 149

- LAWRENCE, A. A., General Robert Howe and the British Capture of Savannah in 1778, 25 pp. *Ga. Hist. Quar.*, Dec.
- OPDYCKE, LEONARD, *Naval Visits to Bar Harbor*, 31 pp. Bar Harbor, Me., Bar Harbor Times Pub. Co. Account of the years c. 1895-1915 when such visits were part of the regular routine.
- PRATT, FLETCHER, *The Monitor and the Merrimac* (Landmark Series), 192 pp. \$2.12. Eau Claire, Wis., E. W. Hale.
- READER, W. H., USN, *Recollections of the USS Holland*, 2 pp. *USNIP*, Jan. 1953. Details of the first naval submarine.
- SMITH, H. S., *The Futile Star of the West*. *Jour. Miss. Hist.*, Jan. 1953.
- WALTER, F. X., *The Naval Battle of Mobile Bay*, 40 pp. *Ala. Hist. Quar.*, 'No. 1 & 2, 1952.' 'Submitted in partial fulfillment of the requirements of English A at Spring Hill College.'
- WOLDMAN, A. A., *Lincoln and the Russians*, 311 pp. \$4.00. Cleveland, World Pub. Co. Esp. Ch. 9, 'The Russian Fleet Comes to the United States'; Ch. 10, 'The Myth of Russian Friendship.'

### XI. Naval to 1939—Other Regions

- BISSET, SIR JAMES, *Fortune of War: An Episode of the 1914-1918 War*, 5 pp. *Annual Dog Watch*. Sinking of British destroyer in night collision, 1918.
- 'EBORACUS,' pseud., *British Destroyers*, 13 pp. *Brassey's Annual*. Historical development from 1893.
- HAMILTON-EDWARDS, GERALD, *Queen Victoria at Spithead: The Naval Review of 1856*, 2 pp. *Trident*, Jan. 1953.
- 'HAVILDAR,' pseud., *The Indian Expeditionary Force, 1878*, 6 pp. *United Services*, Nov. Forces rushed to Dardanelles, with list of transports.
- HURREN, B. J., *Fellowship of the Air, 1901-1951*. \$6.75. New York, British Book Center. Includes survey of British naval aviation, about which the author wrote a separate volume in 1949.
- KEMP, P. K., *H.M. Submarines*, 224 pp. 16s. London, Jenkins. History of British submarines, particularly in the two World Wars.
- LLOYD, CHRISTOPHER, *The Naval Miscellany*, Vol. IV, 502 pp. 45s. Vol. XCII. Publications of the Naval Records Society, London.
- MARDER, A. J., ed., *Fear God and Dread Nought: The Correspondence of Admiral of the Fleet Lord Fisher of Kolverstone*, Vol. I, *The Making of an Admiral, 1854-1904*, 377 pp. 30s. London, Cape. The first of three projected volumes. This, like Marder's recent volume of Admiral Richmond's journals, is a by-product of his projected sequel to his *Anatomy of British Sea Power*.
- , Winston Churchill as First Lord of the Admiralty, 1911-1915, 9 pp. *USNIP*, Jan. 1953.
- MAUNDER, ERN, *The Ocean in Chains*. *Atlantic Guardian*, July. Barricading of Narrows at St. John's, Newfoundland, in 1796, and World Wars I and II.
- MEAD, H. P., RN, *The Admiralty Telegraphs*, 4 pp. *Mariner's Mirror*, Nov. Revised list of the stations under Murray's shutter system, 1796-1808, and Popham's semaphore system, 1816-1829.
- MOODY, J. D., *Old Naval Gun Carriages*, 11 pp. *Mariner's Mirror*, Nov. Includes short bibliography.
- MURRAY, A. C. (VISCOUNT ELIBANK), *An Episode in the Spanish War, 1739-1744: Admiral Lord Anson and Capt. the Hon. George Murray, RN*, 91 pp. 10s 6d. London, Seeley, Service, 1953. Clears his ancestor of Adm. Boyle Somerville's charges that Murray and Capt. Edward Legge deserted Anson's squadron with ships.
- PIDGEON, S. A., RN, *The Hoodoo Ship*, 4 pp. *Annual Dog Watch*. Misfortunes of munitions ship around Archangel, c. 1917.
- ROWBOTHAM, W. B., RN, *Naval Operations on the Coast of Syria, 1840*, 13 pp. *United Services*, Nov.
- RUBIN, E., *140 Jewish Marshals, Generals and Admirals*, 330 pp. 21s. London, De Vero.
- VENTRY, LORD, *A Naval Airship with the B.E.F.—1916*, 4 pp. *Army Quarterly*, Jan. 1953.
- WAYWORTH, G. R., RN, & 'SPINDRIFT,' pseud., *The Reserve Fleet*, 13 pp. *Brassey's Annual*. Sections on 'Before 1939' and 'Today.'
- WILLIAMSON, J. A., *Sir Francis Drake* ('Brief Lives'). \$1.75. New York, Macmillan.

### XII. World War II

- DERRY, T. K., *The Campaign in Norway*, 298 pp. 35s. London, H.M. Stationery Office.
- FUKUDOME, SHIGERU, *Strategic Aspects of the Battle off Formosa*, 11 pp. *USNIP*, Dec. By former vice-admiral who commanded most of the naval land-based air units in Kyushu and Formosa at time of Battle off Formosa, 12-16 Oct. 1944.

150 RECENT WRITINGS IN MARITIME HISTORY

- HOWARTH, DAVID, *Across to Norway*, 220 pp. \$3.75. New York, Sloane. American title of volume already noted as *The Shetland Bus*; clandestine wartime communication between Shetlands and Norway by fishing boats.
- HUNN, MAX, *Saga of the Lucky Ark*, 7 pp. *S&S*, Jan. 1953. Wartime experiences of Navy transport *Arcturus* (AKA-1), formerly C-2 freighter *Mormachawk*.
- HURREN, B. J., see Sect. XI.
- JONES, T. M., & IDRESS, I. L., *Silent Service; Action Stories of the Anzac Navy*, 2nd ed., revised. 372 pp. 21s. Sydney, Angus.
- KEMP, P. K., see Sect. XI.
- LINCOLN, G. A., *Economic Problems of Military Mobilization: Planning Military Requirements. Am. Econ. Rev.*, May. Followed by J. P. Miller, 'Military Procurement Policies.'
- MCCONNELL, J. E., *Valiant Occasions*, 261 pp. \$3.00. New York, Macmillan. British and Australian naval episodes, World War II.
- MAUNDER, ERN, see Sect. XI.
- NORMAN, ALBERT, *Operation Overlord; Design and Reality; the Allied Invasion of Western Europe*, 230 pp. \$3.75. Harrisburg, Mil. Service Pub. Co. The Normandy landings and aftermath.
- SCHAEFFER, HEINZ, *U-Boat 977*, Introduction by Nicholas Monsarrat, 260 pp. \$3.50. New York, Norton, 1953. Author commanded one of the newest snorkel-equipped German submarines, and escaped in her to Argentina at end of war. That final episode appeared in *Saturday Evening Post*, 22 Nov., 11 pp., as 'We Escaped in an Outlaw U-Boat.'
- SOKOL, A. E., *German Attacks on the Murmansk Run*, 16 pp. *USNIP*, Dec.
- THORNTON, P. D., *Sea of Glory: The Magnificent Story of the Four Chaplains*, 243 pp. \$3.00. New York, Prentice Hall, 1953. Biographical studies of the four army chaplains who went down on the transport *Dorchester*, torpedoed on the Greenland run, after giving their life-jackets to men who lacked them.
- WAYMAN, D. G., *David I. Walsh: Citizen Patriot*, 366 pp. \$5.00. Milwaukee, Bruce. Walsh was last chairman of Senate Naval Affairs Committee, 1936-1947; see Ch. 18, 'Building a Two-Ocean Navy' and index under 'Navy.'
- YOUNG, EDWARD, RNVN, *One of Our Submarines*, 320 pp. 18s. London, Hart-Davis. Account by first RNVN officer to command a Royal Navy submarine.

XIII. Naval since 1945

- Air Battle of Washington, 3 pp. *U. S. News*, 12 Dec. Revived feuding among the services.
- ARGYLE, E. W., *Submarines of Seven Nations*, 4 pp. *Sea Breezes*, Nov.
- BLORE, TREVOR, RNVN, *Research for the Royal Navy*, 10 pp. *USNIP*, Dec.
- BRANDENBURG, H. H., see Sect. X.
- BROWN, B. F., *USN, Research and the Naval Officer*, 5 pp. *USNIP*, Jan. 1953.
- BUSH, VANNEVAR, *What's Wrong at the Pentagon*, 5 pp. *Colliers*, 27 Dec. The distinguished scientist 'would limit the Joint Chiefs of Staff to planning, with others commanding the three services.'
- COLBY, C. B., *Wings of our Navy*, 62 pp. \$1.00. New York, Coward-McCann.
- (DAVIS, G. H.), *The Submarine's Distress Signal*, 1 p. *Ill. London News*, 10 Jan. 1953. New marker buoy; diagrams with comments.
- FISHER, A. C., JR., *Our Navy's Long Submarine Arm*, 25 pp. *Nat. Geog.*, Nov.
- FLOBERG, J. F. *Tomorrow's Atom-Powered Carriers: Sea Power's Sunday Punch*, 4 pp. *Colliers*, 4 Oct. Article signed by Assistant Secretary of the Navy for Air.
- FOXLEY-NORRIS, C. N., *RAF, The Need for a RAF Anti-Shipping Force*, 8 pp. *United Services*, Nov.
- HARTER, C. J., *USN, The Laws of the Accountable Officer*, 5 pp. *USNIP*, Jan. 1953.
- HARVEY, H., *Friendly Fleet in the Mediterranean*, 3 pp. *Reader's Digest*, Jan. 1953. U. S. Sixth Fleet.
- HAYES, J. D., *USN*, see Sect. IX.
- HESSLER, W. H., *Tug of War in the Baltic*, 9 pp. *USNIP*, Dec.
- Keel laid for *Forrestal*, 3 pp. *Shipyard Bulletin* (Newport News), July-Aug. Ceremony for 59,900-ton carrier, 14 July 1952.
- LINCOLN, G. A., see Sect. XIII.



- LOOSBROOK, J. F., 'Operation Mainbrace.' *Air Force Mag.*, Dec. Claims that the combined NATO maneuvers in northwest European waters showed the vast number of ships 'inherently vulnerable' to a small number of submarines, etc., etc.
- MILLIS, WALTER, Military Problems of the New Administration; Our Military Policy, 10 pp. *Foreign Affairs*, Jan. 1953.
- The Navy's Patrol Planes, 10 pp. *USNIP*, Dec. Chiefly pictures, with brief comments.
- NICHOLL, A. D., RN, The Work of the Navy in the Suez Canal, 1951-52, 8 pp. *Brassey's Annual*.
- NICHOLL, G. W. R., RN, The Future of the Aircraft Carrier, 6 pp. *Brassey's Annual*.
- SAY, H. B., USNR, Mainbrace—Potential becomes Reality, 7 pp. *USNIP*, Jan. 1953. Draws conclusions quite different from those of Loosbrook above.
- 'SEABORNE,' pseud., The Need for Amphibious Forces in the Post-War Situation, 5 pp. *United Services*, Feb. 1953.
- STROOP, P. D., USN, Training Officers of the Deck, Carrier Style, 4 pp. *USNIP*, Dec.
- Sub Succors a Limp Blimp, 2 pp. *Life*, 17 Nov. Submarine *Seadog* rescues crew of K-119 in exercises off Georgia coast.
- 'TARQUIN,' pseud., The Loss of H.M. Submarine *Affray*, 7 pp. *Brassey's Annual*.
- TAYLOR, T. L., USN, Barex and Nanook fight the Ice, 4 pp. *S&S*, March. Annual naval expeditions, part of 'Fleet Cold Weather Operations,' to carry supplies to Arctic outposts at Point Barrow and along the Greenland coast.
- THURSFIELD, H. G., RN, The Making of an Officer, 9 pp. *Brassey's Annual*. The editor of *Brassey's* argues that 'it is time that equalitarian theory was swept away altogether.'
- U. S. Navy's Korean War, 3 pp. *Newsweek*, 12 Jan. 1953.
- WALLIN, H. N., USN, & DERIEUX, J. C., America's New Dreadful Weapon, 5 pp. *Colliers*, 20 Dec. The atomic submarine—'complete, authoritative story with drawings made from Navy plans. See also *Life*, 15 Dec.
- WAYWORTH, G. R., RN, see Sect. XI.
- Where Sailors did not want Liberty, 3 pp. *All Hands* (Bureau of Naval Personnel), Feb. 1953. The new Arctic base at Thule.

#### XIV. Marine Art, Ship Models, Collections, Exhibits

- ADAM, H. A., *Model Boat Construction*, 102 pp. 42s. London, P. Marshall.
- BEKEN, FRANK & KEITH, *The Beauty of Sail*, unpag. \$10.00. New York, de Graff. One hundred full-page photographs of yachts since 1880's, from Beken Collection of 31,000 negatives.
- COLCHESTER & ESSEX MUSEUM, *East Coast Maritime Exhibition*, 33 pp. 1s 6d. Colchester, The Museum. Catalogue of some 300 items in exhibition, 10-22 March 1952.
- DANIELS, W. J., & TUCKER, H. B., *Model Sailing Craft*, 239 pp. 63s. London, Chapman & Hall. 3rd revised edition; originally published in 1932.
- DODGE, ERNEST S., *Paintings and Drawings by John Leavitt, an exhibition organized by the William A. Farnsworth Library and Art Museum, Rockland, Maine*, 24 pp. Rockland, Me.
- HENNINGSEN, HENNING, Ship Models in Danish Churches, 7 pp. *Mariner's Mirror*, Nov.
- LAVIS, N. B., Marine Paintings and Ship Models in the House of Parker, 2 pp. *Annual Dog Watch*. The Parker Gallery, 'London's oldest picture and print dealers,' founded 1750.
- LECKY, W. C., Thirty-six inch Model of the SS. *United States*, 8 pp. *Popular Mechanics*, Dec. 1952-Jan. 1953.
- (LYMAN, JOHN), The National Museum of Nautical History at Stockholm, Sweden, 2 pp. *Log Chips*, Nov.
- MCCORMICK, G. E., Fitz Hugh Lane, Gloucester Artist, 1804-1865, 16 pp. *Art Quarterly*, Winter.
- MERRICK, JAMES, The *Mayflower* makes a new Landfall, 4 pp. *S&S*, Dec. Technical details of replica for MGM film 'The Plymouth Adventure.' See also *Life*, 4 pp. 17 Nov.
- Ship Relics in Museum, 2 pp. *Seattle Times Pictorial Section*, 21 Dec. Pictures, with comments, of the new museum of the Puget Sound Maritime Historical Society, 81a Columbia St., Seattle, opened 29 Nov. 1952.
- SWIFT, C., *Waterline Model Liners*, 49 pp. 6s. London, P. Marshall.
- 'TOBY,' pseud., Some English Nautical Inn Signs, 2 pp. *Trident*, Dec.
- TRUXTON-DECATUR NAVAL MUSEUM, *Our Gallant Merchant Marine, An Exhibition, November 14, 1952-March 1, 1953*, 16 pp. Washington, The Museum.

152      *RECENT WRITINGS IN MARITIME HISTORY*

WAY, FREDERICK, JR., *A Real Challenge: Mississippi Steamboat Models*, 4 pp. *S&S*, Dec.

WHITE, E. W., *Handbook of Collections Illustrating British Fishingboats and Coastal Craft*, 48 pp. 3s 8d. London, The Museum and H.M. Stationery Office. Part II of descriptive catalogue of Science Museum collection; Part I, historical survey, issued in 1950. Part II describes 116 models and also lists 153 sets of plans, photographic copies of which may be purchased at the Science Museum, London, SW 7.

WILLIAMS, H. O., *How to build a Mast*, 2 pp. *S&S*, Jan. 1953.

——— *How to make a Block*, 2 pp. *Ibid.*, March 1953. Both from his 'The Model Shipwright' series.

WILLIAMS, JAY, *The Ships that never get Wet*. *True*, Jan. 1953. Models.